

Voltage4



MEET THE TEAM

V4



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V4

THE PROBLEM

The screenshot shows a news article from INQUIRER.NET. At the top, there's a navigation bar with links for Global Nation, Business, Lifestyle, Entertainment, Technology, Sports, News Stories, Headlines, Metro, Regions, Nation, World, and CDN. Below the navigation is a section titled 'NATION'. The main headline reads: 'Record PH heat drives power supply alerts, bares grid weaknesses'. It's dated November 13, 2025, and attributed to Cristina Eloisa Baclig - Content Researcher Writer / @inquirerdotnet. The article was published on INQUIRER.net at 11:33 AM April 30, 2024. There are share buttons for social media. Below the main article, there's a sidebar for 'POWER PHILIPPINES' with categories like Home, News, Features, Sustainability, Energy Trailblazers, Market Insights, and Videos. A sub-headline below the sidebar reads: 'Luzon Grid at Risk as Coal Plants Falter -ICSC'. The date April 3, 2025, and a comment count of 0 are also visible.

- Supply-demand imbalance
- Environmental and climate stress
- Limited distribution-level visibility

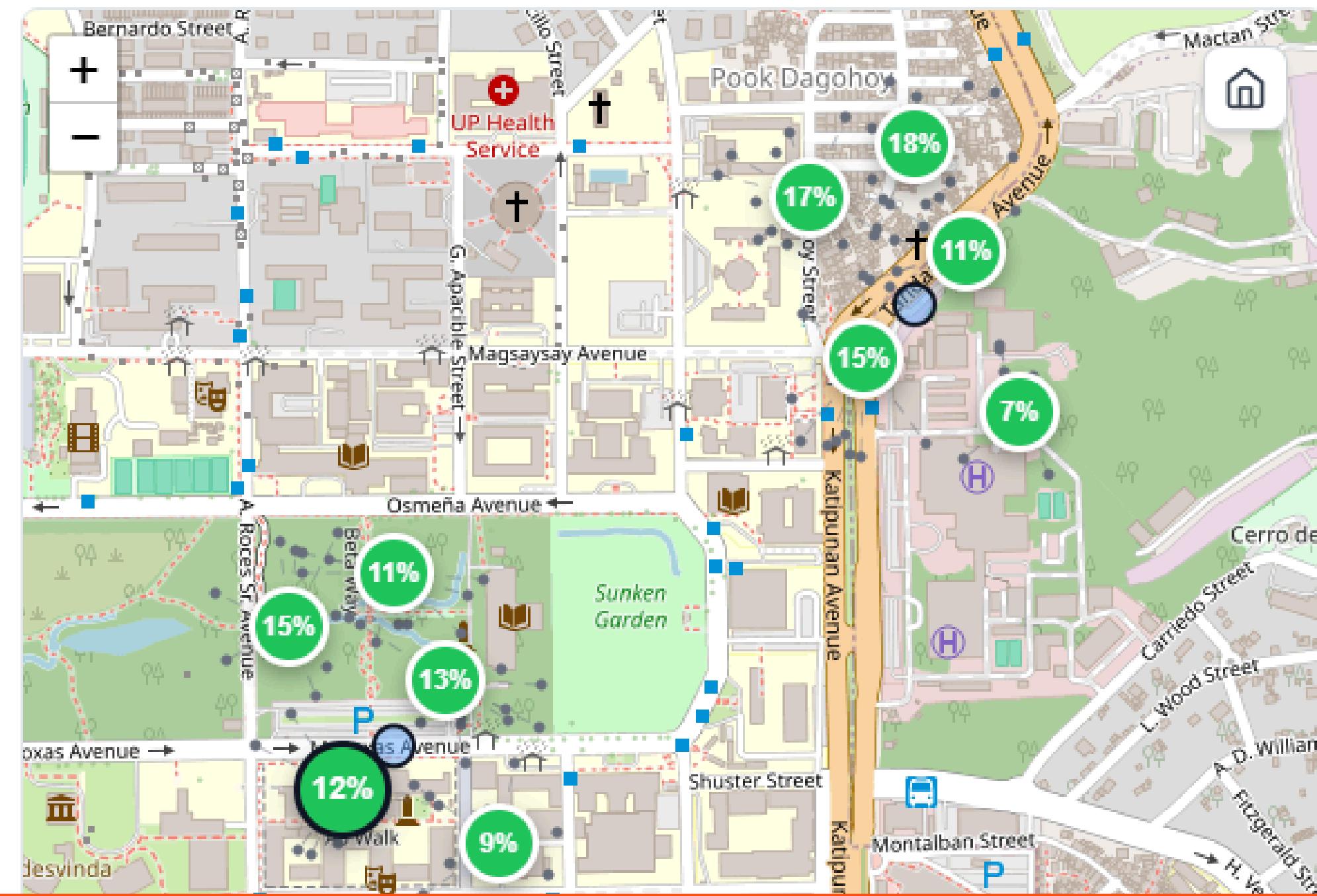
GridPulse

by 

GridPulse delivers **real-time grid monitoring and analytics**, combining load, outages, power quality, and environmental stress into a **Grid Health Index (GHI)**. This helps utilities, barangays, and consumers spot weak points early, plan maintenance smarter, and boost resilience against demand spikes and climate impacts.

Barangay Grid Map

Transformers and connected households within UP Diliman



GridPulse
by 

KEY FEATURES



Login

GridPulse

Powering Smarter Energy Insights

A comprehensive energy monitoring and analytics platform for Meralco, Barangay administrators, and consumers.

Monitor grid health, transformer loads, and consumption patterns in real-time.



Interactive Maps

Visualize transformers and households on interactive maps with real-time grid health indicators.



Analytics & Insights

Track consumption trends, grid health metrics, and predictive insights for better energy management.



Multi-Level Access

Role-based dashboards for Meralco administrators, Barangay officials, and individual consumers.



Exit

GridPulse

Barangay Watch by v4

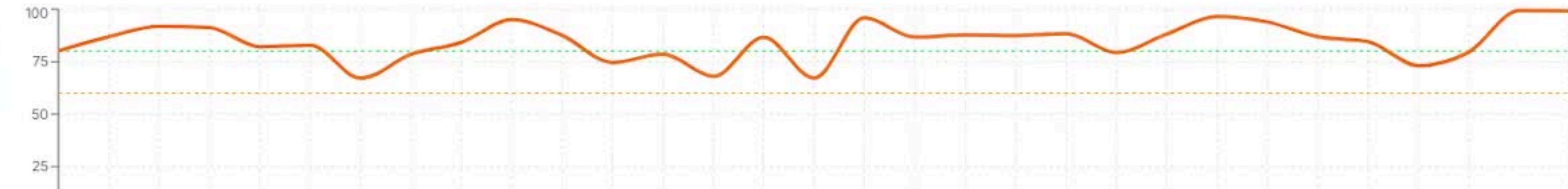
Barangay Dashboard



BGHI Trends

Grid health history for UP Diliman

Last 7 Days Last 30 Days





Exit

GridPulse

Bahay Watch by V4

Current Consumption

2.15 kWh

Real-time consumption

Live Load (kW)

2.15 kW

Derived from barangay smart meter

Daily Average

2.01 kWh

Last 30 days average

vs Average

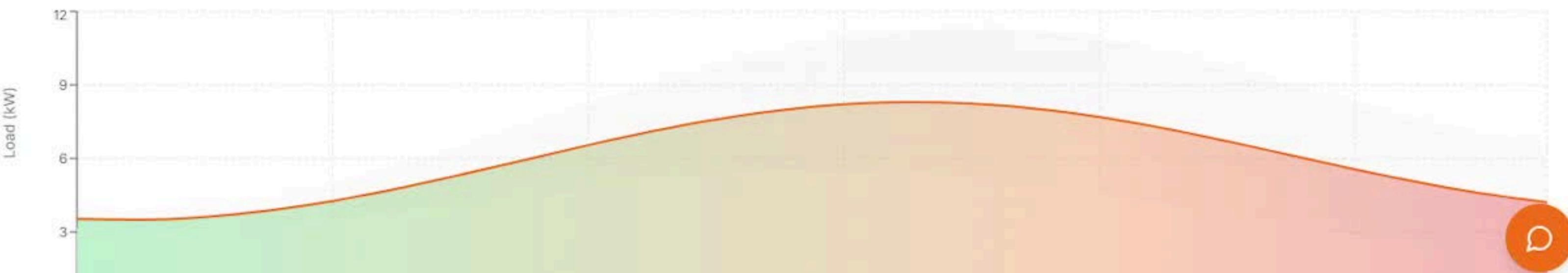
+6.9%

Compared to daily average

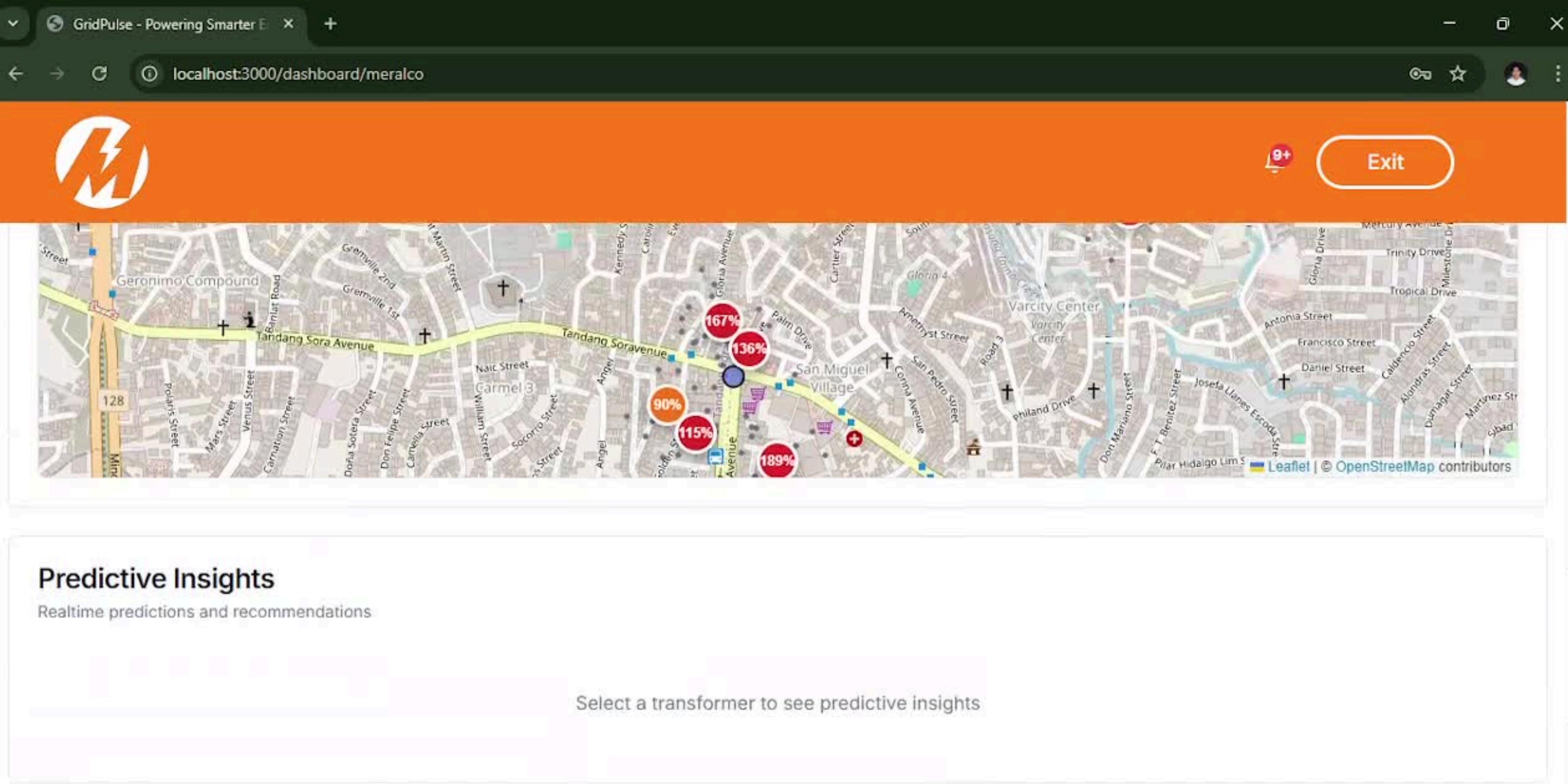
Household Load Forecast

24-hour prediction with 95% confidence interval

Forecast Accuracy

95.0%

Simulating Disaster



Simulating Blackout

GridPulse - Powering Smarter

localhost:3000/dashboard/meralco

9+

Exit

Geromino Compound

Tandang Sora Avenue

Mars Street

Venus Street

Carmel Street

Dona Soledad Street

Dona Felipa Street

Camella Street

Nicanor Street

Garcia Street

Socorro Street

Angel Street

Tandang Soravenue

Palm Drive

San Miguel Village

Corona Avenue

Philand Drive

Don Mariano Street

F.T. Berantes Street

Joseta Uunes Escoda Street

Pilar Hidalgo Lim Street

Trinity Drive

Tropical Drive

Antonia Street

Francisco Street

Daniel Street

Calendio Street

Alandras Street

Ounaga Street

Martinez Street

Leaflet | © OpenStreetMap contributors

Predictive Insights

Realtime predictions and recommendations

⚠️ PPT-QC-003 within IEEE normal loading (NaN%) - continue routine monitoring per ERC standards

PPT-QC-003

Current load 0.00 kW · 0.0%

Transformer Alerts

Real-time recommendations

Windows Taskbar icons: File Explorer, Google Chrome, Spotify, Microsoft Edge, File Manager, Task View, Volume Control, Network, Battery, and a small circular icon.

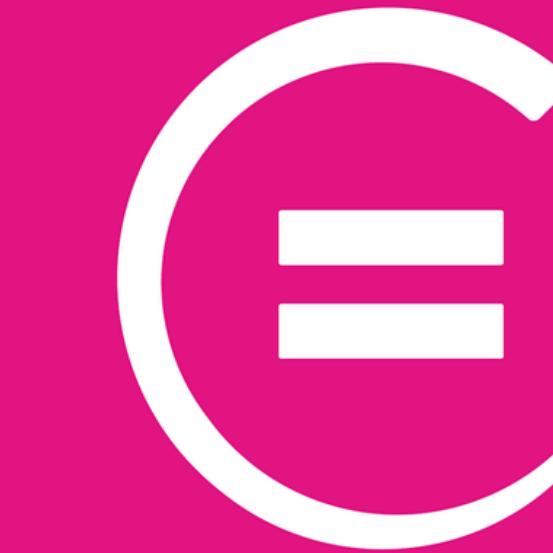
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



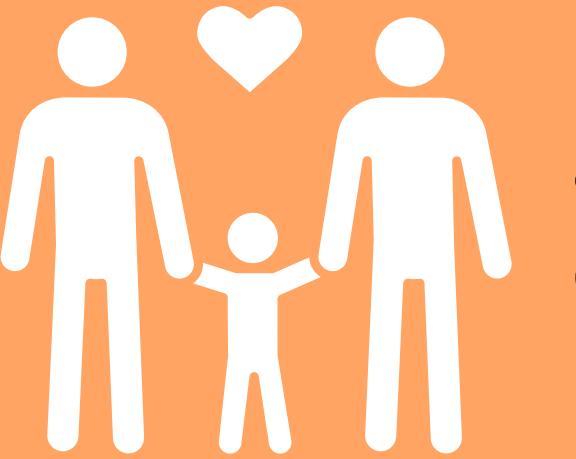
11 SUSTAINABLE CITIES AND COMMUNITIES



10 REDUCED INEQUALITIES



MARKET OPPORTUNITIES



Meralco serves over
**8 million residential,
commercial, and
industrial customers**



Philippine smart city
market - estimated
to reach **\$266.11 m
revenue in 2025**



556 million pesos for
every five hours of
no electricity



Philippine
market size in 2025 -
\$27.20 billion

ICT

ROLLOUT STRATEGY

Phase 1

**DESIGN
PROCESS PLAN
AND
MERALCO/LGU
ALIGNMENT**

Phase 2

**LOW-RISK,
INFO-BASED
PILOT**

Phase 3

**ANALYST
INTEGRATION
AND FEEDBACK
LOOP
IMPROVEMENT**

Phase 4

**FIELD
EXPANSION AND
FURTHER
COMMERCIAL-
IZATION**



THANK YOU

<https://newsinfo.inquirer.net/1935270/record-ph-heat-drives-power-supply-alerts-bares-grid-weaknesses>

<https://powerphilippines.com/luzon-grid-at-risk-as-coal-plants-falter-icsc/>