powerHUD

Smart ENERGY Management

Energy Analytics & Monitoring

PowerHud® provides an accurate analysis of energy use, identifies waste, and reduces your bill with demand management and smart reporting features.

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TURKMALI Turkey

www.powerhud.com

Executive Summary

01 What is PowerHud®?

PowerHud® is an Energy Analytics Platform that gives a real-time analysis of your energy consumption. It collects, processes, and analyzes large volumes of energy data, generating insightful reports of your energy performance to drive improvements. PowerHud® identifies hidden energy cost drivers and operational inefficiencies using real-time and historical data aggregated from IoT devices. Its Heads-Up Display (HUD) provides a wealth of data – at a glance – that is useful and easy to understand.

02 Who Needs It?

Nowadays, businesses rely and depend on energy more than ever. From industrial manufacturing plants, hotels, schools, hospitals, banks, retail chains to commercial buildings, businesses are powered by energy. A large budget is allocated for this necessity, as well as time and resources to better understand (and reduce) energy consumption (and waste).

PowerHud® is an innovative solution to better understand the performance of devices, systems and their energy consumption, as well as gaining insights into energy savings, operational efficiencies and sustainability.

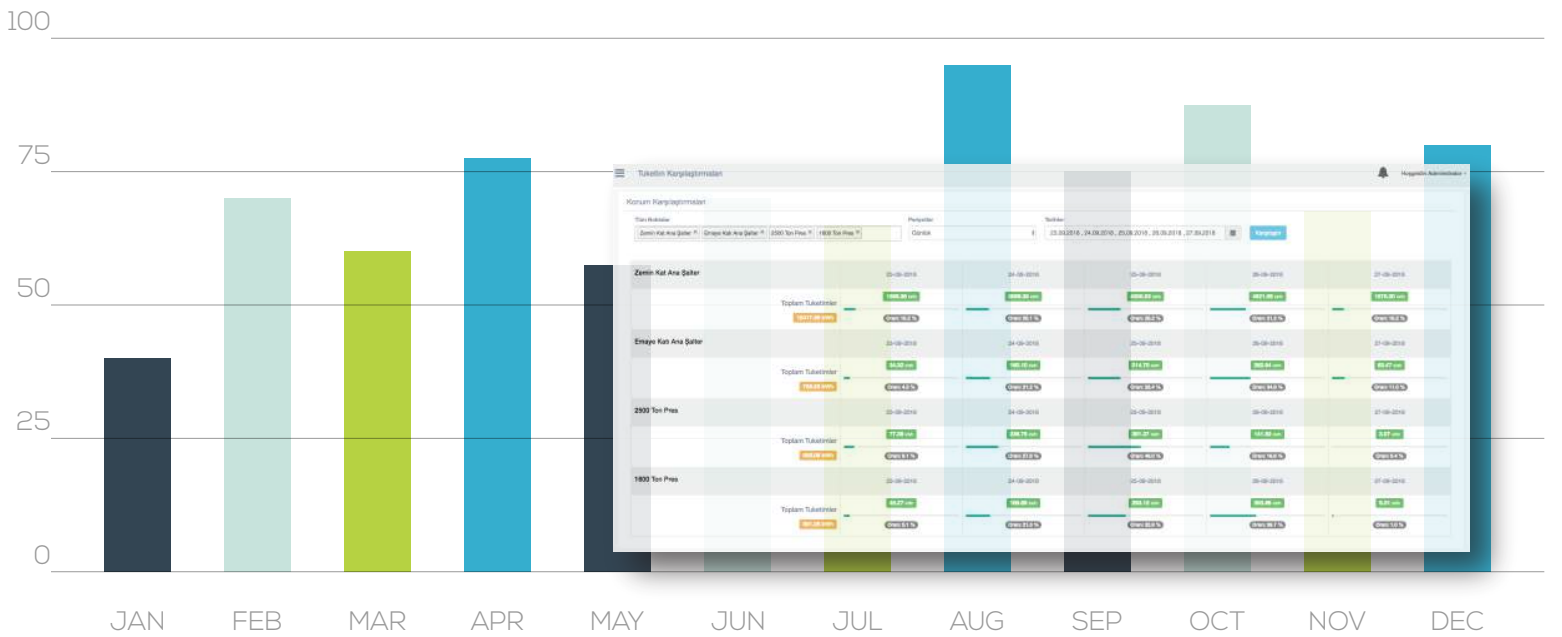
03 What are the Benefits?

PowerHud® implements a systematic approach to energy efficiency that not only significantly improves energy performance, but also results in greater productivity and lower maintenance needs. Key benefits are:

- Manage and track energy usage and payments through a single dashboard.
- Pinpoint root causes of energy waste and inefficiencies.
- Uncover hidden trends & patterns.
- Identify opportunities to save.
- Avoid risks to uptime & reduce operational costs.
- Monitor reactive penalty limits and payment due dates
- Unify management of all utilities.
- Continually evaluate and improve energy management.
- Achieve energy savings and sustainability

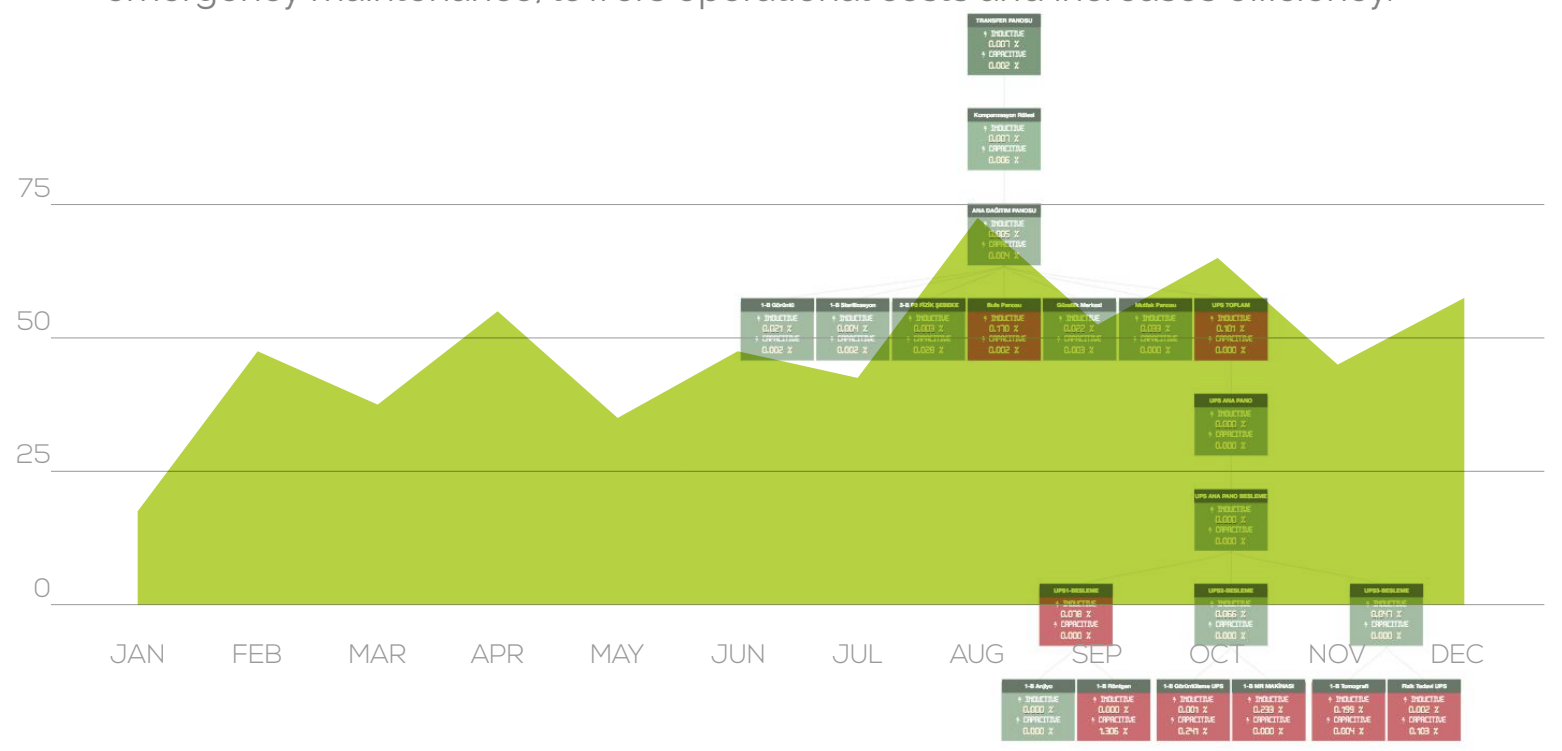
Features

Charts



DAILY / MONTHLY / YEARLY CONSUMPTION COMPARISON

Detailed comparisons are the best way to distinguish your current and previous energy consumptions, enabling you to identify astronomic increases or when an energy-related component is likely to fail. This actionable insight helps prevent emergency maintenance, lowers operational costs and increases efficiency.



MONITORING ENERGY QUALITY AND REACTIVE ENERGY

Most of the time, businesses discover bad energy quality when critical energy related equipment fail. Moreover, they may receive high penalties in their utility bills if the reactive power compensator is not monitored. PowerHud® sends real-time notifications to help prevent or analyze possible failures or penalties immediately.

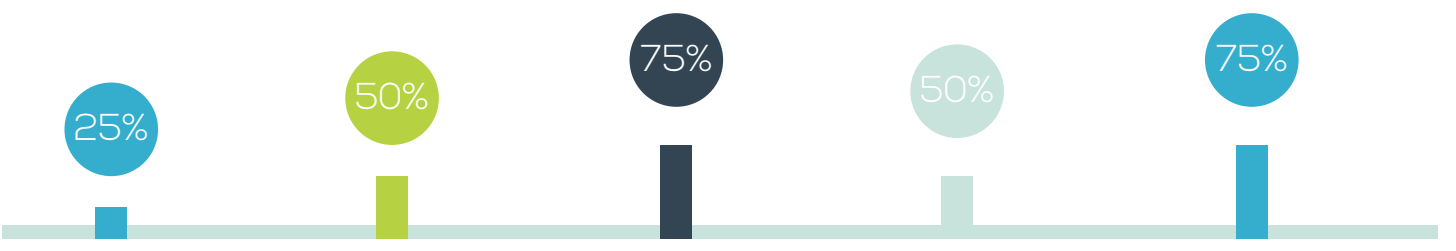
Features

Charts

Businesses with multiple branches can monitor and analyze their energy use across all locations from a single point. PowerHud® offers various comparison charts of total energy consumption between the locations. It also shows a breakdown of total consumption into different energy use areas of each location.

AND MANY MORE SMART CHARTS

PowerHud® users may customize a wide range of smart charts, from reactive limits to harmonic distortions, according to their needs.

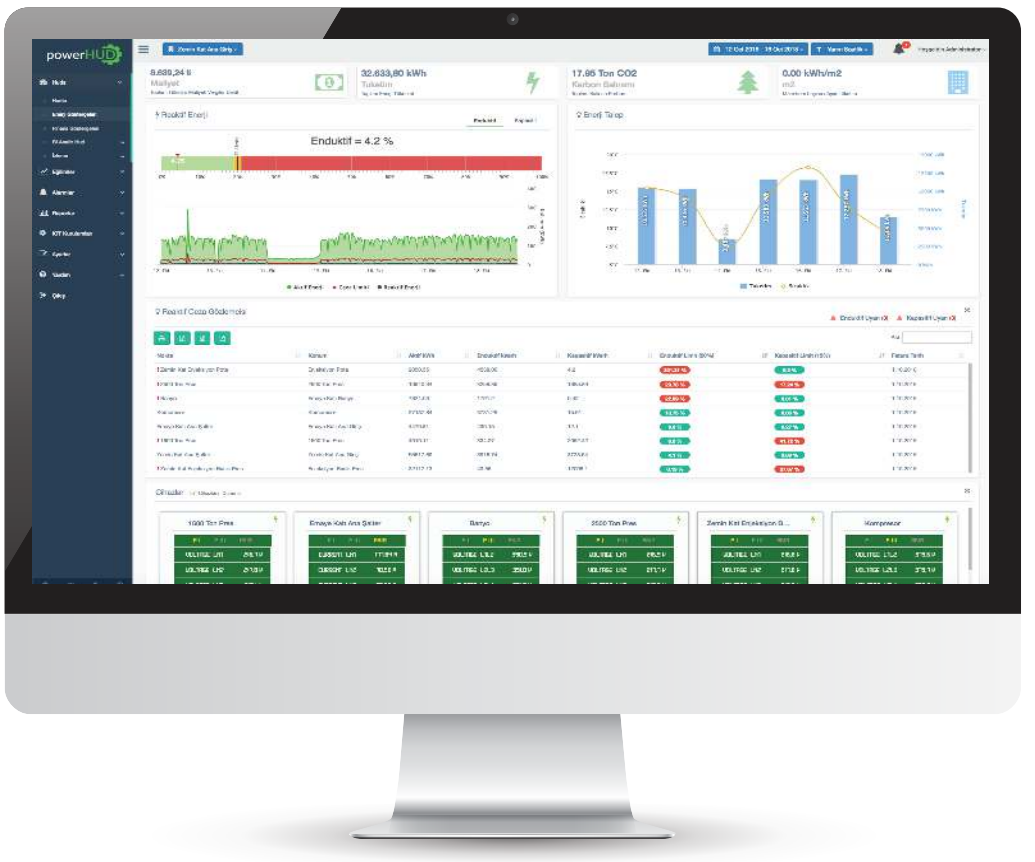


Features

Specs

Many current processes for energy analysis are labor intensive, but they don't have to be. PowerHud® provides innovative business intelligence with regular processing, management and analytics for large quantities of energy data at high speed, to save time and solve many headaches.

You receive daily, weekly and monthly energy consumption reports, as well as instant alarm notifications if anything goes beyond the rule boundaries that are defined in the system.



REPORTING

Customizable reports to quickly and efficiently specify data for your various needs.

ALARMS

Ensures nothing escapes your sight.

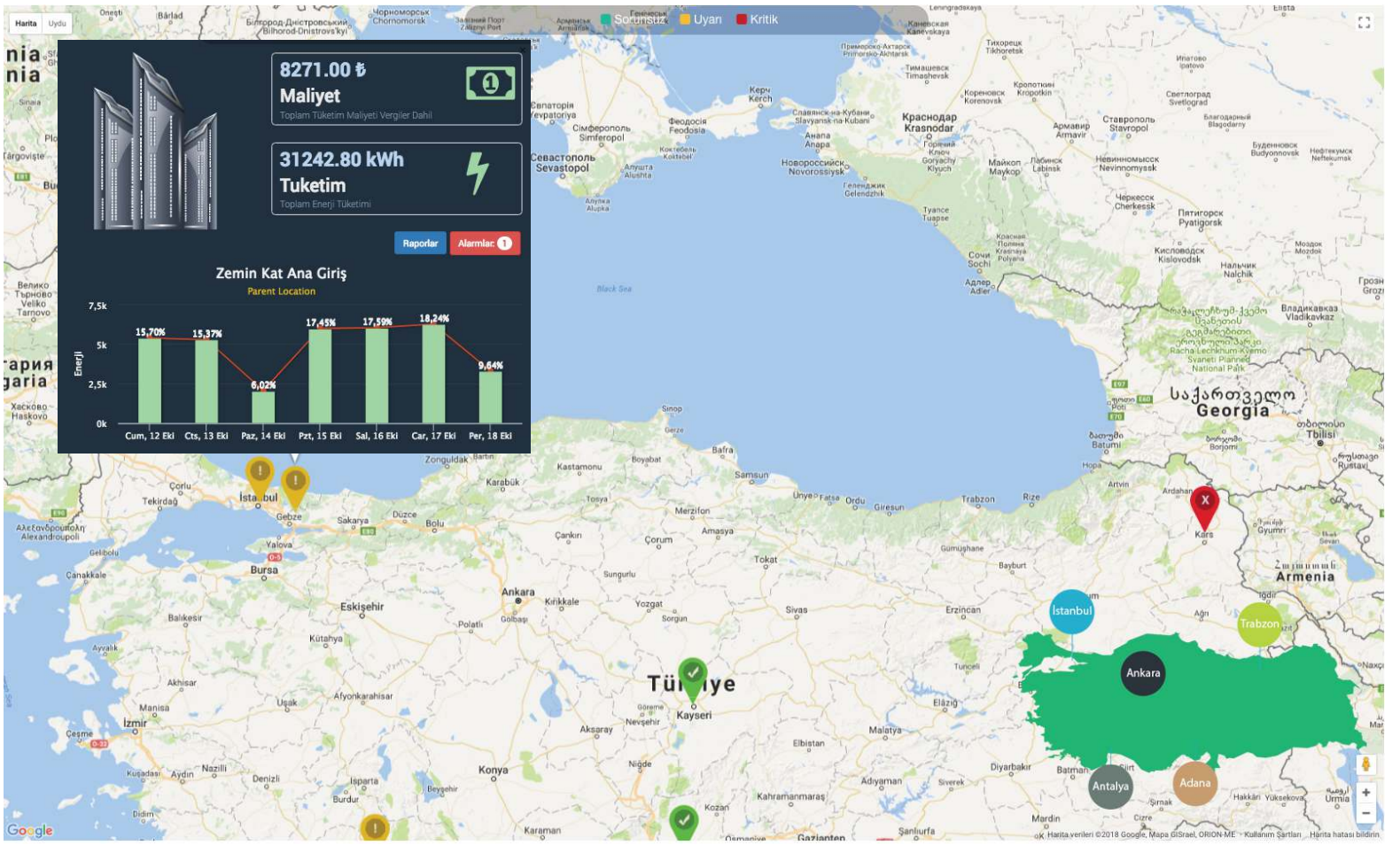
TARIFF COMPARISONS

View current and previous tariffs, as well as forecasted energy expenses.

Features

Location

PowerHud® provides a live map-view to quickly identify and track potential problems in different regions through Red/Amber/Green statuses. You are also instantly notified about reported problems via email and/or short messages.



USER ROLES

Custom permissions enables you to enforce powerful security and access control. There are different ways within PowerHud® that maximizes flexibility in how permissions are granted and modified.

A user can be responsible for a single location or an entire region. You may also grant permissions and visiblity control at team levels to improve efficiency when dealing with large groups of users. Alarm notifications may be segregated and only sent to the responsbile administrator(s) for regions with problem statuses.

DEMAND MANAGEMENT

If you can't measure it, you can't improve it. Monitor your energy demand costs, identify peaks, and analyze cost savings opportunities.

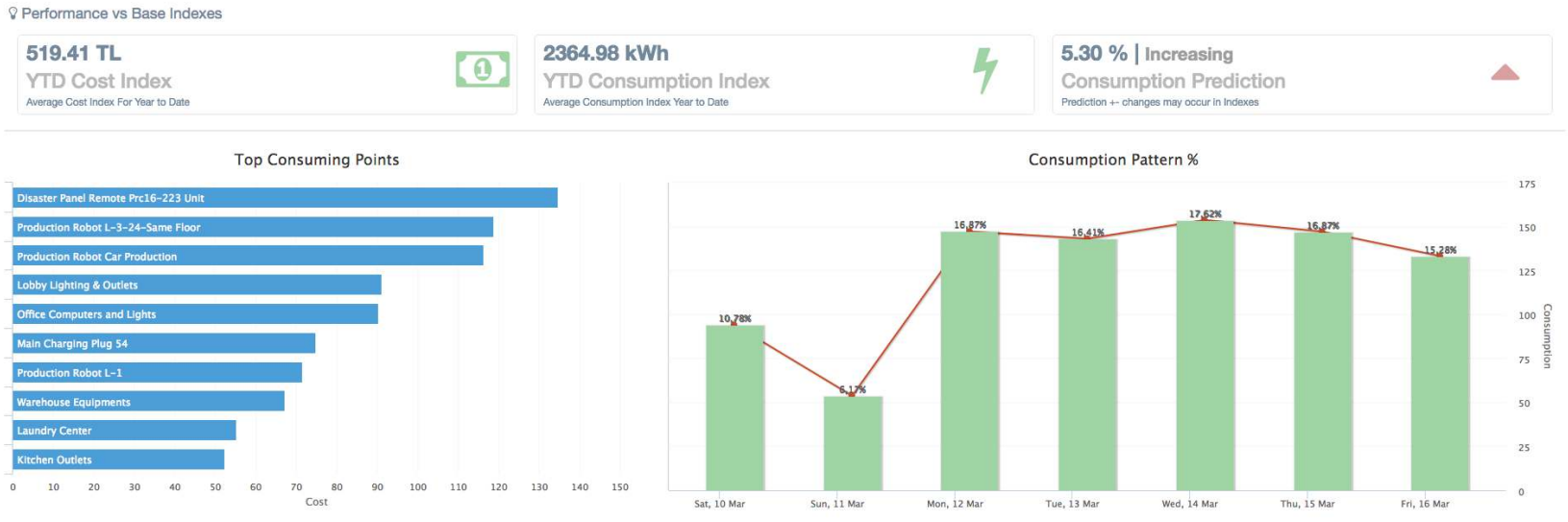
ANALYTICS ENGINE

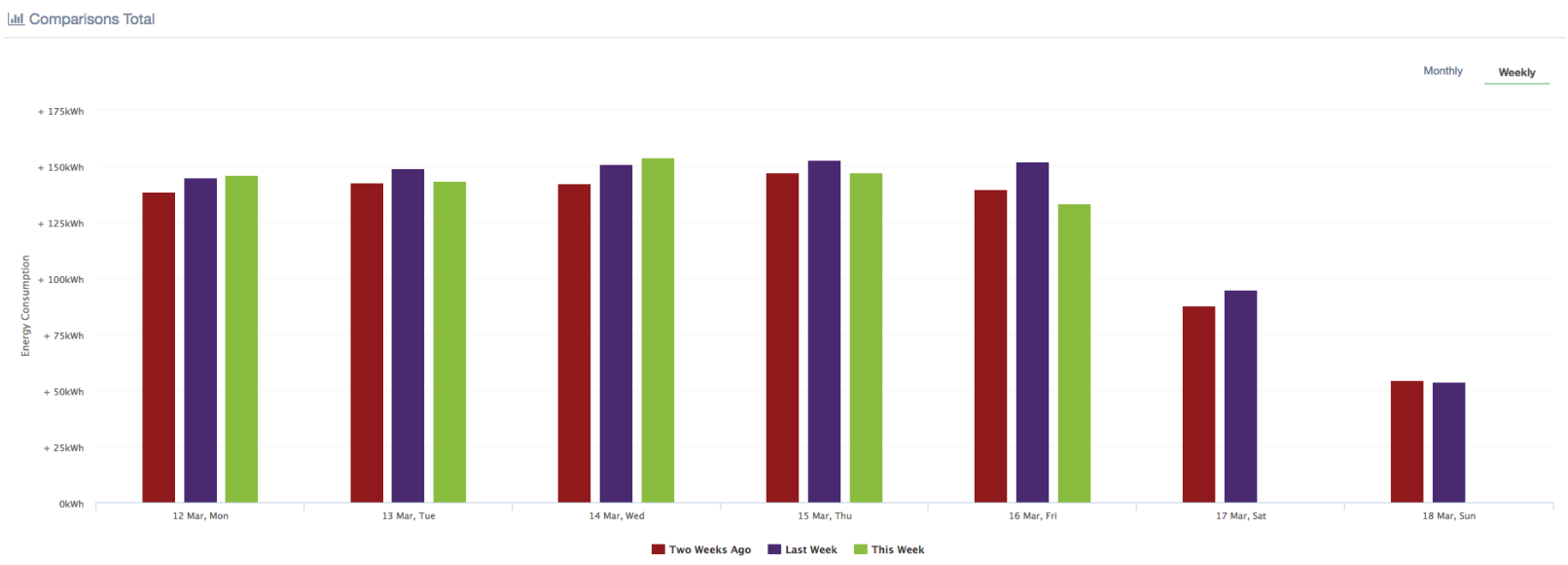
PowerHud's Analytics Engine enables your organisation to easily and quickly adopt Big Data analytics as a core part of your business and accelerate conversion of your data into valuable business insights and Key Performance Indicators.

Features

Trends

With trends, you can monitor your energy consumption patterns at each premise. Furthermore, you may visually compare data between specific dates and multiple locations.

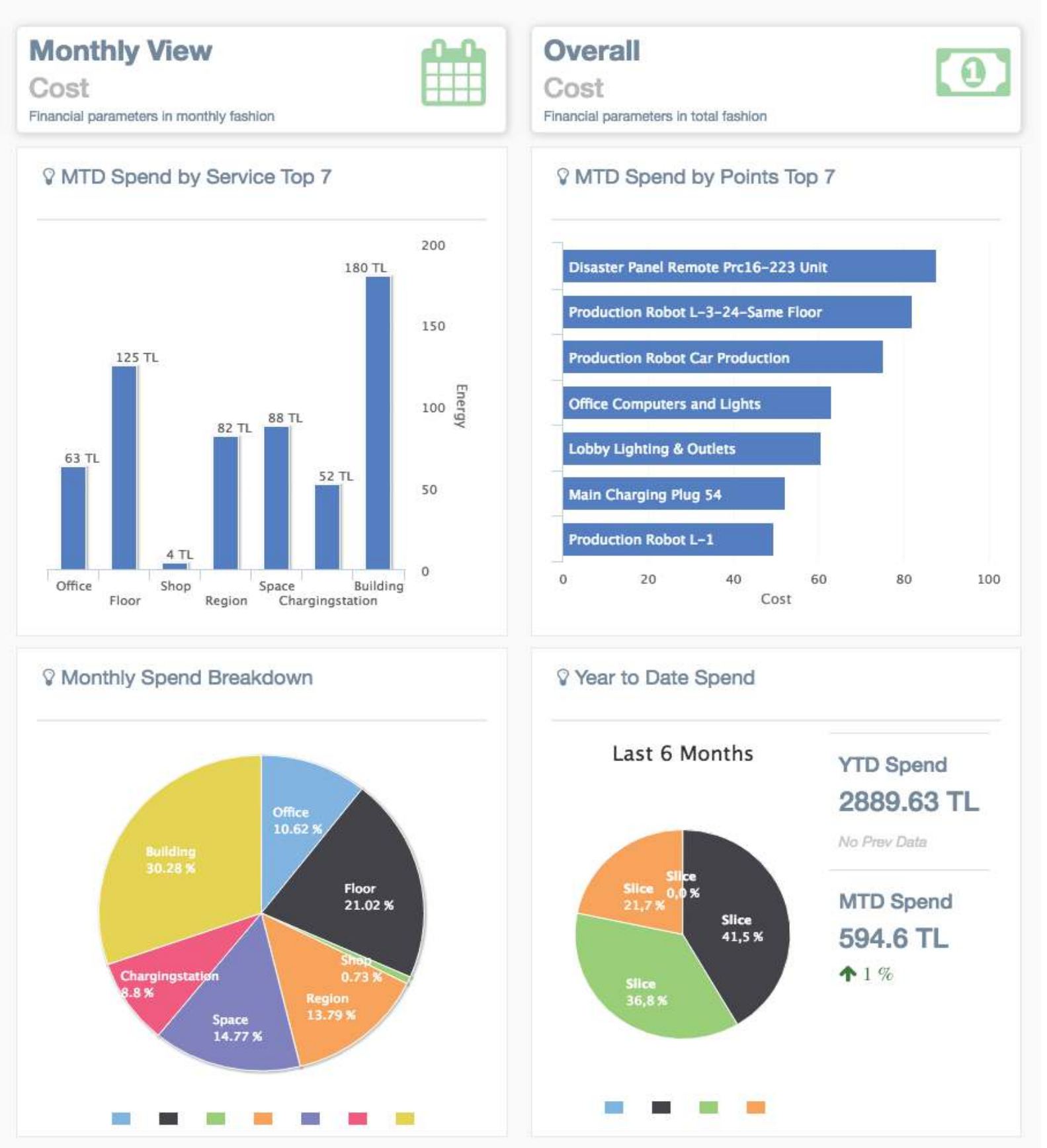




Features

Finance

PowerHud® displays real time consumption and cost data analysis for single and multiple locations.



Energy data is collected in large volumes that increase with time. This vast amount of data is processed and analyzed to gain dramatic insight into financial performance and cost predictions. Historical data is compared with current data on a montlhy and yearly basis in order to create financial ratios used to monitor changes over time.

Features Reports

PowerHud's Advanced Reporting Studio allows users to create detailed reports within any range of dates. Reports can be saved in different industry standard formats (Excel, CSV, PDF, Print).

Energy Consumption Details

Show 25 rows | Previous 1 2 3 4 5 ... 12 Next | Search

Date	Active Consumption (kWh)	Inductive Consumption (kVArh)	Capacitive Consumption (kVArh)	Inductive (%)	Capacitive (%)
10/03/2018 00:00	0.499	0.144	0.083	0.029 %	0.017 %
10/03/2018 00:30	1.359	0.368	0.14	0.027 %	0.01 %
10/03/2018 01:00	1.114	0.363	0.183	0.033 %	0.016 %
10/03/2018 01:30	0.958	0.393	0.188	0.041 %	0.02 %
10/03/2018 02:00	1.045	0.359	0.132	0.034 %	0.013 %
10/03/2018 02:30	1.598	0.424	0.163	0.027 %	0.01 %
10/03/2018 03:00	0.997	0.392	0.18	0.039 %	0.018 %
10/03/2018 03:30	1.108	0.413	0.134	0.037 %	0.012 %
10/03/2018 04:00	1.506	0.305	0.236	0.02 %	0.016 %
10/03/2018 04:30	1.353	0.343	0.142	0.025 %	0.01 %

Energy Consumption Details

Show 25 rows | Previous 1 2 3 4 5 ... 12 Next | Search

	Voltage (V)			Current Akım (A)			Cos Φ			Active (kW)			Inductive (kVAr)			Capacitive (kVAr)			(%) THDI		
Tarih	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
10/03/2018 00:00	219.25	214.65	218.																%		11.82 %
10/03/2018 00:30	219.3	214.54	218.																		9.67 %
10/03/2018 01:00	219.27	214.67	218.																%		11.37 %
10/03/2018 01:30	219.36	214.89	218.																%		10.74 %
10/03/2018 02:00	219.28	214.84	218.																%		11.96 %
10/03/2018 02:30	219.21	214.43	218.																		10.4 %
10/03/2018 03:00	219.2	214.65	218.																		9.63 %
10/03/2018 03:30	218.88	213.95	217.																%		11.83 %
10/03/2018 04:00	218.77	214.26	217.																%		14.76 %
10/03/2018 04:30	219.32	214.59	218.																%		10.43 %
10/03/2018 05:00	218.84	213.83	217.																%		11.86 %

Invoice Details

Invoice

Date: 18 Oct 2018

To
TRANSFER PANOSU
ERSOY HASTANESİ

Contract Demand:	750 kVA	**Invoice Begin:**	01-10-2018
Inductive Limit:	20 %	**Tariff Type:**	Single
Capacitive Limit:	15 %	**Device:**	TP ŞEBEKE

	Date	Active	Inductive	Capacitive
First Index	01-10-2018 (00:00:00)	1,817,079.00	9,879.00	9,879.00
Last Index	18-10-2018 (16:23:23)	1,834,453.00	9,998.00	9,998.00
Difference		17374	119.00	119.00
Device Multiplier		1	1	1
Consumption		17374.00 kWh	119.00 kVArh	119.00 kVArh
Reactive %			0.68 %	0.68 %
Unit Price		0.264733 ₺		

This is an informative invoice. Calculations may vary based on retailer's prices and subscription charges.

Payment Due 25-10-2018

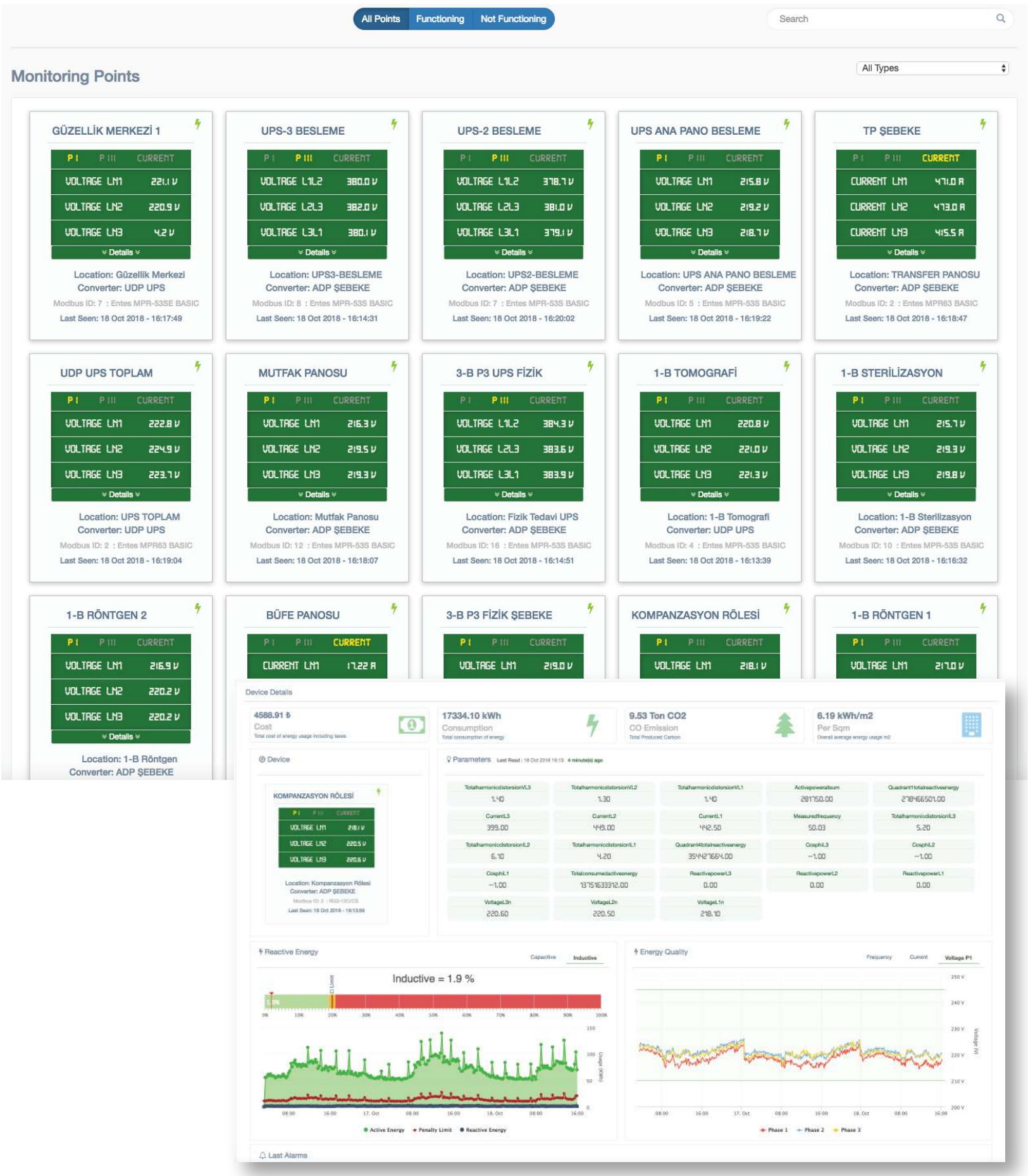
Subtotal:	4,599.47 ₺
Dagitim Bedeli	1,163.38 ₺

Enerji Fonu	1.00 %	45.99 ₺
Elektrik Tüketim Vergisi	5.00 %	229.97 ₺
TRT Payı	2.00 %	91.99 ₺
K.D.V.	18.00 %	1103.54 ₺
	Total:	**7,234.34 ₺**

Generate PDF

Features Live Monitor

Analyzers, generators, UPS and other types of sensors installed at multiple locations are monitored and managed in a single window. Alarms on each device help users take immediate action to prevent possible faults and reduce operational costs.



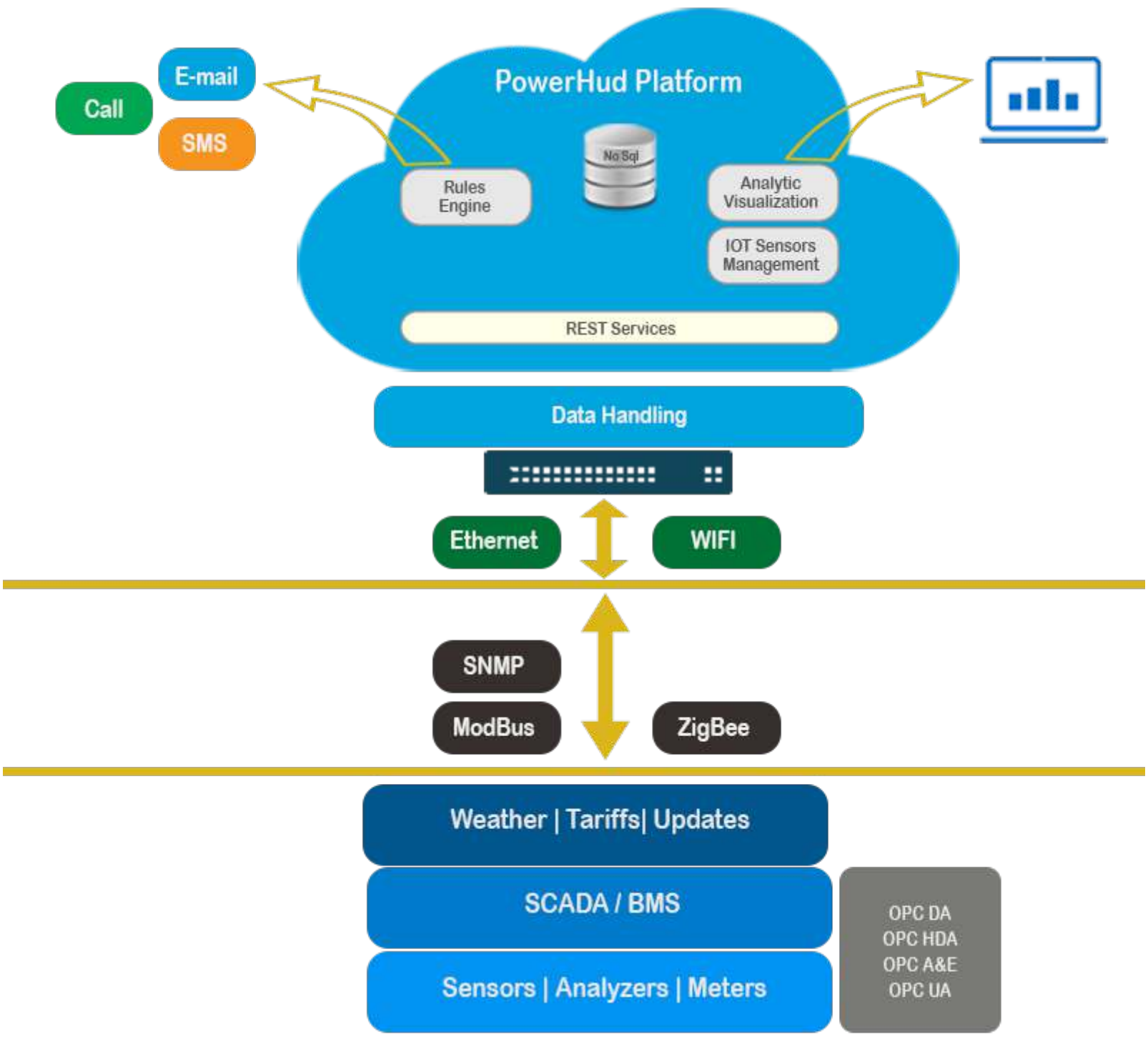
System How it Works

PowerHud® has a flexible structural design that enables it to work on the cloud or local virtual machines. It uses noSql (MongoDB) as its database server. Here are the main steps:

- Data is collected from analyzers and sensors by PowerHud's collection agent. This data is sent to a data aggregation service, which automatically classifies the data and saves it into a database.

- The data is analytically processed, as per the rules defined, and if any match is found, user(s) will be notified.

- All IoT devices can be monitored by PowerHud®. Any device that is reporting an error or appears inaccessible by PowerHud® will be reported to the user(s).



Contact Reach Us

PowerHud® team is here to provide you with more information, answer any questions you may have and create an effective solution for your industry needs. We are incredibly responsive to your requests and value your questions.

www.powerhud.com

INSTALLATION IN FOUR STEPS

01
ANALYSIS

Survey is conducted at your location to design the software platform.

02
DESIGN

As per result of the survey, project plan is created for next steps.

03
INSTALLATION

After procurement of the sensors, installation and commissioning is complete.

04
PLATFORM

Relationships are created between the software platform and peripheral units and go live.

CONTACT DETAILS

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