Digital Energy Management for Sustainability

www.vtcenergy.com

Turkey's Top 500 Companies

We are proud to be among them!

As **VTC Energy**, we are one of the key players in the sector with a sustainable energy management perspective, and we provide digital energy management for companies with the software we have developed. With the work we have done, we are among the **"Turkiye's Top 500 Companies"** in the Fortune 500 - Turkiye list published by Fortune magazine in 2021 and 2022.

The digital energy management platform V-Gen product family, developed by our company's expert staff is integrated with different markets and manages the energy of power generation plants regardless of the source.

Our balance responsible party is one of the largest balancing parties in Turkiye with a capacity of **5.5 GW** and provides up to **100%** advantage to our stakeholders every year.

In 2023, 158.7 billion telemetry data were monitored with V-Sensor, our IoT-based energy monitoring platform. Over 7.5 GWh trading volume took place in our energy trading platform V-Gen throughout the year.

VTC ENERGY

VTC ENERGY

Great Place To Work. Certified

COMMERCIALS OF VTC ENERGY

Customers

As a company in the Fortune 500 list for 2021 and 2022, we have 500+ industrial clients, which 90% of the total transaction volume of is from companies in the Fortune 500 list.

Locations

We provide solutions to our customers from our offices in **Kocaeli, Istanbul, Gaziantep and Berlin.**

Our Team

We have 95 employees, 55 of whom are **engineers and postgraduated engineers,** all of whom are experts in their fields.

Sectors

We serve to many different sectors such as Energy, Construction, Textile, Tourism, Food, Chemical, Petroleum, Tire, Iron and Steel.

R&D

We have 6 successfully completed R&D projects, one of them is a **TEYDEB** project supported by **TÜBİTAK.**

Balancing Group

We provide up to **100%** advantage to our participants with our Balancing Group which has **5.500 MWh** capacity.

VTC ENERGY

PRODUCT AND SERVICE

Energy Management

We remotely monitor our customers energy and minimize their costs. We provide Day-Ahead Market and Intraday Market integrations, cost optimization, production planning and portfolio management services.

**Not every feature is available for every market

Carbon Trading

We enables the enterprises that produce with green energy to acquire I-REC, which is the International Renewable Energy Certificate, as soon as possible according to the amount and resource type they demand.

Energy Effiency Management

We provide an end-to-end management audit in all energy efficiency issues, especially energy surveys, VAP (Efficiency Increasing Projects) and **ISO-50001** Energy Management System projects with our expert and certified team members.

Renewable Energy

We manage system operator processes of licensed power plants. We reduce imbalance costs with day-ahead and intraday wind and solar forecasts. We manage the **Cancellation Statement processes of Renewable Energy Certificate, Issue Certificate and Carbon Certificates.**

Artificial Intelligence Solutions

We provide day-ahead and intraday **production and consumption forecasting** services with artificial intelligence and machine learning algorithms.

Monitoring - IIoT

We provide all the components your industrial facility needs for digital transformation with a holistic perspective. We securely transform your data into added value with specially designed **IIoT devices.**

VTC ENERGY

V-Forecast

V-Forecast is a software solution for forecasting of electricity load. The solution is a self-learning and self-calibrating system. It is based on AI, Machine Learning, Statistical Models and historical load data to automatically produce accurate electricity load forecasts.

V-Forecast automatically detects seasonality and can apply multi-seasonality based on the historical load data.
It is powerful & accurate, yet easy-to-use and quick to implement. It can be up and running in hours or even minutes.

Key Benefit

- Automatically and accurately forecasts electricity load for a portfolio of electricity consumers.
- Increases security of supply for electricity customers.
- Easy and inexpensive to install, maintain and operate.
- Low maintenance with minimal interference and interaction required from the client.
- Clustering different assets and producing forecasts for cluster itself. It can be used for day-ahead market orders of the customers which have multiple assets.

Who is it for?

- Electrical supply/distribution companies
- Industrial facilities with high energy density
- Balance responsible parties
- Energy trade specialists

V-FORECAST

Asset Management

Customers can define assets as many as they want and get the forecasts for each asset. Various models are trained and best fitting model is found for each asset. Assets can be clustered and forecasts are also produced for the cluster itself.

Sharing Forecasts

Produced forecasts can be retrieved via API which V-Forecast supplies for each asset. Forecasts can also be sent to customers via e-mail, FTP, FTPS or SFTP.

Managing Times of Exception

The capacity status of the forecasted assets may vary during periods such as breakdowns, maintenance and leave days. In such periods, forward planning can be done with different methods to produce the most accurate forecast value. As a result of the planning, the system generates two different forecasts, one based on the planning information and one based on the absence of this information. Thus, the current forecast value can be monitored at the same time with the information on how the system would produce a value if there was no fault or maintenance input from the monitoring screens.

V-Sensor Integration

V-Forecast has built-in integration with V-Sensor. Customer can easily map V-Sensor Assets to V-Forecast assets. So that asset historical data can be updated with live inputs coming from V-Sensor. Asset historical data will always be up to date. Customers don't have to upload excels all the time.

Completion of Missing Data

In case that real-time data flow cannot be provided or no consumption value is entered into the system, the system minimizes deviation rates by filling in the historical values with the the closest behavior pattern.

Retrospective Forecast

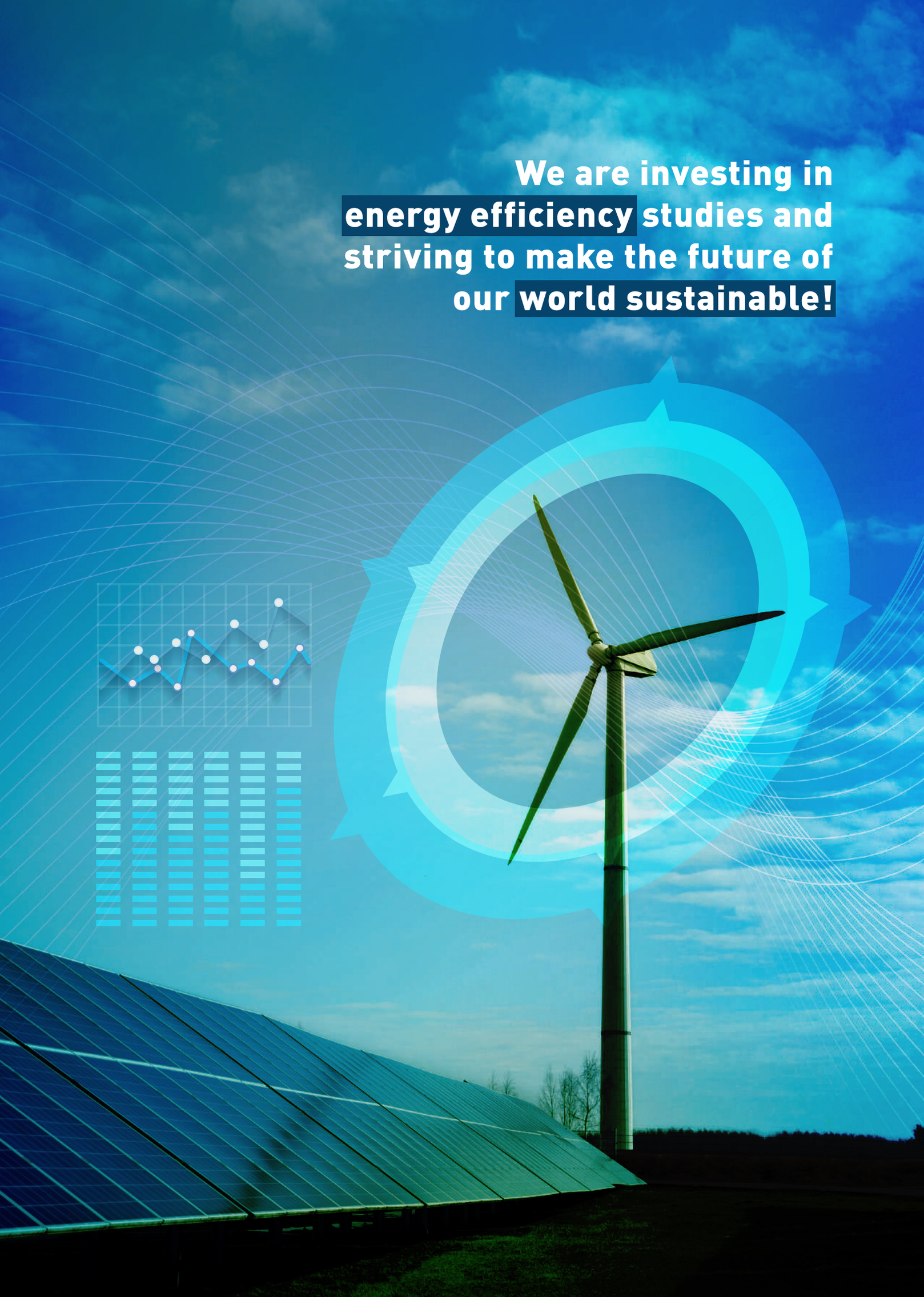
When historical data and the forecast value to be compared are uploaded to the system it calculates automatically what kind of results you would've received if the forecasting was realised in bygone era. It calculates the costs that will be caused because of the deviation amounts in the relevant period by using the market clearing price and system marginal price information and shows the benefit account for the last 3 months.

Day-ahead Forecasting

Forecasts are auto-generated for day-ahead (48 hours) electricity loading.

Best Model Selection

Asset data periodically is trained and best model is found between various AI, Machine Learning and Statistical Models.


We are investing in
energy efficiency studies and
striving to make the future of
our world sustainable!


BERLİN
KOCAELİ
GAZİANTEP
İSTANBUL
KOCAELİ
*Headquarters
İSTANBUL
GAZİANTEP
BERLİN
VTC
ENERGY

Digital Energy Management for Sustainability

VTC ENERGY

Head Office

Seymen Mah. D-130 Karayolu Cad.
No:69 41245
Başiskele / KOCAELİ

İstanbul Office

FSM Mah. Poligon Cad. No:8
Buyaka 2 Sitesi 3 Nolu Blok Daire
No:76
Ümraniye / İSTANBUL

Gaziantep Office

Yamaçtepe Mah. Gaziantep Üni.
Teknopark C Blok Kat:1 D.107
Şahinbey / GAZİANTEP

Berlin Office

Street No: Potsdamer Platz 10, Zip,
City: 10785
Berlin GERMANY

info@vtcenergy.com

+90 262 311 11 51