

**Product Name:** GravitasETRM

**Category:** Energy Trading and Risk Management (ETRM)

**Version:** v1.0

**Release Date:** [TBD]

**Target Users:** Energy Traders, Risk Managers, Operations Teams, Finance, Compliance Officers

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## Product Summary

**GravitasETRM** is a modern, cloud-native Energy Trading and Risk Management platform designed to manage the full lifecycle of energy and commodity trades — from deal capture to settlement — with real-time risk analytics, high configurability, and seamless integration.

Built for energy companies, utilities, and trading desks, GravitasETRM helps you manage your trading operations across power, gas, oil, emissions, and renewables with unmatched flexibility and speed.

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## Core Features

### 1. Trade Capture Engine

Capture, validate, and manage structured or vanilla trades across a range of commodities.

- Support for physical and financial trades (forwards, swaps, futures, options)
  - Real-time trade entry via UI or API
  - Deal templates for repetitive trade structures
  - Counterparty lookup and auto-complete
  - Full trade lifecycle management (Draft → Confirmed → Settled)
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### 2. Real-Time Position & PnL

Get instant insights into trading performance, updated with every market movement.

- Real-time mark-to-market (MTM)
  - Intraday and EOD P&L (Realized + Unrealized)
  - Drill-down by trader, desk, region, or product
  - Curve-linked valuation support
  - Exposure management
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### 3. Market Risk Management

Advanced tools for monitoring and managing market exposure across portfolios.

- Historical and parametric VaR (configurable time horizons and confidence levels)
  - Sensitivities and Greeks (Delta, Gamma, Vega)
  - Scenario analysis and stress testing
  - Limit checks and real-time alerts
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#### 4. Curve & Market Data Management

Robust tools for managing market prices, forward curves, and volatility surfaces.

- Central repository for price curves and volatilities
  - API and CSV upload support
  - Versioned curve management
  - Market data validation and change auditing
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#### 5. Low-Code Workflow Automation

Streamline operations with rules-based processing and validation.

- Configurable trade validation rules
  - Deal approval workflows with notifications
  - Post-trade automation hooks
  - User-defined expressions for settlement, pricing, risk logic
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#### 6. Settlements & Finance

Track cash flows, accruals, and invoices with integration-ready modules.

- Cash flow and settlement schedule tracking
  - Accrual generation based on delivery schedules
  - Invoice matching and generation
  - ERP-ready outputs (SAP, Oracle)
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#### 7. Integration-Ready API Layer

Connect seamlessly to third-party systems, exchanges, and brokers.

- REST and GraphQL APIs for all entities (trade, PnL, curve, risk)

- Real-time webhooks for position updates
  - ISO/TSO integration stubs (ENTSO-E, PJM, IESO, NGESO)
  - Outbound connectors for data lakes, Excel, and reporting tools
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## 8. Role-Based Security & Compliance

Operate securely in a regulated environment.

- OAuth2.0 login with 2FA
  - Role-based access controls (view/edit/export)
  - Complete trade and action audit trails
  - Built-in support for GDPR, REMIT, EMIR reporting
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## 9. Dashboards & Reporting

Powerful visualizations and business intelligence tools.

- Interactive dashboards for risk, PnL, position
  - Configurable reporting templates
  - Export to Excel, PDF, CSV
  - Integration with BI tools (Metabase, Tableau, Power BI)
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## 10. Cloud-Native Architecture

Built for modern infrastructure with elastic scale and modular design.

- Kubernetes microservices architecture
  - Kafka-based event streaming
  - ClickHouse for real-time analytics
  - AWS/GCP/Azure deployment-ready
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## Optional Add-Ons

| Module             | Description                                       |
|--------------------|---|
| Credit Risk Engine | Exposure limits, netting, and collateral tracking |

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| Module               | Description                                       |
|----------------------|---|
| Optimization Module  | Forecast-based trading and portfolio optimization |
| Emissions Tracker    | CO2 emissions position & offset management        |
| Algo Trading Engine  | Rule-based execution automation                   |
| Mobile Companion App | Quick trade approvals and PnL viewing on the go   |

## Supported Commodities (v1)

- Electricity (Day-ahead, Intraday, Ancillary)
- Natural Gas
- Crude Oil & Refined Products
- Carbon/Emissions Certificates
- Renewables (REC, IREC, PPAs)

## Deployment Options

| Option        | Details   |
|---------------|---|
| SaaS          | Fully managed, multi-tenant or single-tenant option |
| Private Cloud | Customer-managed deployment on AWS, Azure, or GCP   |
| On-Premise    | Custom package for data-sensitive clients           |

## Support & SLA

- 24x7 support with guaranteed incident response time (SLA tiers available)
- Access to knowledge base, product documentation, and integration guides
- Dedicated customer success manager for enterprise clients