



The Trust Grid - A New Utility



# KASPA

**15th Dii Desert Energy - Leadership Summit**  
Dubai - November 2025



# Kaspa & Kii

## A New 21st Century Utility

Real-time trust and settlement for markets, assets, and machines.

Global, permissionless, scalable, secure, decentralised sequencing –  
fast and affordable.





# Larry Fink: The Future Is Tokenised

Video



"Every currency, ETF, and asset will soon be digitised and tokenised, connected through a **single global settlement layer**. We're not talking about it enough. Most countries aren't ready for what's coming."

Larry Fink, CEO,  
BlackRock

*This is the settlement layer only Kaspas BlockDAG can provide globally at the scale required.*



# Kaspa: A Global Sequencing Network

## What it is

- BlockDAG consensus (GHOSTDAG) enables parallel blocks
- Proof-of-Work (kHeavyHash) – simple, secure, optical-mining ready
- Fair-launched, open source; no premine/ICO; not backed by any company or authority
- A True Digital Commodity

## Why it matters

- 12+ years of research; among the most-cited researchers in the field
- Purpose-built to be a neutral, public, censorship-resistant settlement layer
- Optimised path toward optical processors and hardware acceleration



# Hayekian Principles: Spontaneous Order

*F.A. Hayek, Nobel Prize in Economics (1974)*

"The marvel of markets isn't their efficiency—it's that they coordinate millions of individual decisions without central control."

## Bitcoin: Central Planning

- Single transaction queue, artificial bottlenecks
- Only 157M base layer transactions per year
- Layered dependency — institutional gatekeepers required

## Kaspa: Spontaneous Order

- Parallel processing, natural emergence of order
- Unlimited throughput potential without gatekeepers
- Layered choice — optional tools, not mandatory dependencies

*Kaspa doesn't just store value—it coordinates it through spontaneous sequencing rather than coercion*



# BlockDAG at 10 Blocks Per Second



- Multiple blocks created and validated in parallel
- No artificial queues → low latency
- Natural ordering emerges via GHOSTDAG



# The Trilemma, Solved

Traditional systems force trade-offs. Kaspa does not.

- ✓ Scalability — parallel block creation (thousands TPS; sub-second confirmations)
- ✓ Total Decentralization — wide miner participation; predictable rewards (864k blocks/day)
- ✓ Security — Bitcoin-grade PoW with rapid convergence (DAGKnight advances)

Leapfrogged the field — capacity, reliability, and resilience without compromise.



# Energy Is Real-Time. Settlement Isn't.

## The problem

- Electrons move in seconds; cash settles in days
- Reconciliation friction slows market velocity
- Liquidity stranded in cycles, higher risk profiles

## The impact

- Missed real-time pricing opportunities
- Limited flexibility in energy markets
- Capital inefficiency across the system

Legacy rails. Opaque registries. Fragmented carbon. These are the brakes.



## Market Enabler for a New Class of Utility

Kii uses the Dii model to promote and enable a new class of utility

- Enterprise adoption programs and pilots
- Regulatory dialogue and standards alignment
- Partner convening: utilities, OEMs, exchanges, verifiers
- Market enabling tools, build on Kaspa to compliment activities such as ZETA & other initiatives

*Role: Translate protocol strengths into sector outcomes for energy and industry*



# WarpCore: Seamless TradFi Integration



- ISO 20022 and other ISO market standards adapters
- Translate legacy TradFi↔ blockchain with minimal disruption
- MVP operational as a middleware with test transactions ongoing
- Connect trading, settlement, and audit to Kaspa's public rail of all digital assets to traditional financial institution
- Institutional grade settlement rails with KYC/AML
- Allows traditional Institutions transact tokenised assets.

*Let existing systems keep running — while gaining real-time settlement.*



# AssetMint + DANet: Proof at Source

## DANet (Distributed Assaying Network)

- Independent verifiers attest grade, composition, and method at origin
- Cryptographic proofs follow assets across markets
- Decentralised valuation of pretokenised assets via Oracles

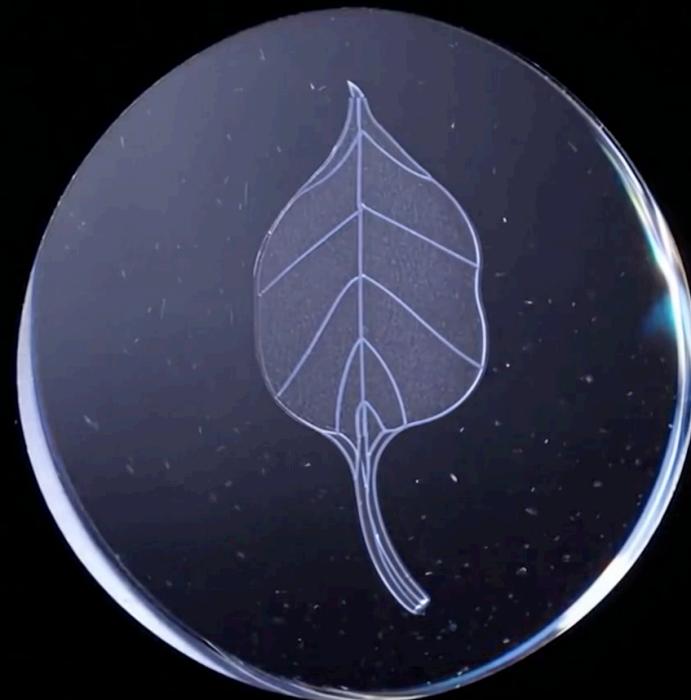
## AssetMint

- Tokenize energy, carbon credits, RECs, and adjacent commodities / environmental derivatives and Real World Assets (RWA)
- Programmable tokens carry provenance metadata
- Source to Sink with Auto-retirement

*You can't fake energy – physical reality anchors digital truth.*



# GWU: Energy's Native Settlement Instrument



 **GIGAWATT**  
COIN

## What it is

Clean-power-backed settlement unit (fractional in kWh)

Collateralized by a basket of assets including Carbon

Programmable: carbon intensity thresholds, ESG logic

**Carbon-neutral to carbon-negative collateral strategy**

## Why it matters

Purpose-built for energy markets

Institutional-grade auditability and compliance

Enables real-time settlement of energy assets

**Global Digital Asset (with modifications for regional markets compliance)**



# Why Not Fiat-Backed Stablecoins?

Compare On	Stablecoins	Gigawatt Stablecoin Unit
Purpose	General-purpose payment instrument, not optimised for energy markets	Purpose-built for energy market settlement and trading
Energy-First	Traditional financial model	Energy-native settlement
Collateral	Fiat IOUs held in traditional banking system	Tokenised energy contracts, RECs, clean energy baskets, select fiats. Variations for some regional markets USA, BRICS, EU
Programmability	Limited to transfer and basic conditions	Carbon intensity thresholds, ESG conditions, automated compliance
Market Fit	Energy markets as afterthought, requires extensive adaptation	Native alignment with energy market dynamics and requirements

*Stablecoins are hammers. Energy markets need precision instruments.*



# ZET-EX: Exchange Introduction

*Powered by Kaspa – built as a proof of concept for friends at ZETA*

## Live Demonstration

- Tokenisation of energy assets and environmental attributes
- Trading pairs with real-time, final settlement on Kaspa
- Secure digital wallet integration with automated compliance
- Complete cryptographically verifiable audit trail export





# ZET-EX: Trading Screens & Workflow



**ZET-EX** Clean Energy Trading

Market: ME e-SAF Spot / GWC **2252.38 GWC**

Last Price: **2252.38 GWC**  
24h Change: **1.10%**  
24h High: **2280.00**  
24h Low: **2230.75**  
Market Cap: **4.00B GWC**  
Vol (E-SAF-ME-S): **4,101**  
Vol (GWC): **9,227,401**  
Asset Type: **e-SAF**  
Verification: **Certified (ISCC CORSIA)**

Tags: **Aviation** **Sustainable Fuel** **MENA** **Spot**

Pair Price Change  
UCC-S/AED **85.50** 1.8%  
UCC-26/AED **92.75** 2.1%  
UCC-27/AED **98.50** 1.9%  
KSA-C-26/SAR **78.00** 0.9%  
UAE-MGR-27/GWC **65.25** 3.5%  
OMN-DAC-26/GWC **480.00** 1.5%  
ADNOC-BNH3-26/... **650.00** -1.2%  
GCC CCS-S/GWC **45.00** 2.8%  
eSAF ME-S/GWC **2250.00** 1.1%  
EGY-WREC-26/USD **3.10** -0.5%  
QAT-SREC-25/QAR **55.30** 0.8%  
GCC-CH4-S/GWC **22.50** 2.0%  
WSC-GCC-S/AED **8.75** 0.9%  
IP-NEOM-25/USD **350.00** 1.8%  
BC-AFR-S/GWC **150.00** 3.5%

**Watchlist**  
Your watchlist is empty.

**ZET-EX Green Insights**  
MARKET TREND  
New Settlement Instrument: GigaWatt Coin (GWC)  
ZET-EX has integrated the GigaWatt Stablecoin (GWC) as a primary settlement instrument. GWC is a stablecoin backed by a basket of assets including fiat currency, carbon instruments, and tokenized real-world assets, designed to provide stability and ZET-EX Official 10:41 AM  
Impacts: UAE-MGR-27, OMN-DAC-26, GCC-CC-...  
Generate New Insight

**Open Orders (2)** **Balances** **Trade History (3)**

Pair	Type	Side	Price	Amount	Filled	Status
UCC-26	limit	buy	92.00	50	0	open
KSA-C-26	limit	sell	79.00	20	5	partially_filled

**My Portfolio Impact (Mock)**  
Total CO2e Offset **200,000 CO2e**  
Renewable Energy Generated **1,000 MW/h**  
Alignment with UN SDGs **SDG7**  
Green Footprint Score **88/100**

**Order Book**  
Price (QUOTE) Amount (BASE) Total (QUOTE)

Price (QUOTE)	Amount (BASE)	Total (QUOTE)
2259.94	57	128,817
2255.63	144	324,811
85.90	70	6,013
85.85	210	18,029
85.80	90	7,722
85.75	180	15,435
85.70	100	8,570
85.65	200	17,130
85.60	80	6,848
85.55	92,254	7,892
<b>2252.38</b>		
2247.56	137,226	308,424
2242.13	158	354,257
85.45	100	8,545
85.40	250	21,350
85.35	50	4,268
85.30	300	25,590
85.25	150	12,788
85.20	100	8,520
85.15	200	17,030
85.10	50	4,255

**Trade History**

Time	Price (QUOTE)	Amount (BASE)
10:44:18 AM	<b>2252.38</b>	43
10:44:14 AM	2251.53	8
10:44:11 AM	2250.94	5
10:44:07 AM	2251.18	9
10:44:04 AM	2250.47	10
10:44:00 AM	2250.94	16
10:43:57 AM	2250.12	10
10:43:53 AM	2248.90	1



# ZET-EX: Trading Screens & Workflow



Portfolio Overview ↗ Pro Trading

**TOTAL PORTFOLIO VALUE (USD EST.)**  
**\$2,196,837.10**

### Quantum-Secured Digital Assets

KSP	QEC Certified	1,500,000	68.28%	\$1,500,000.00
GWC	QEC Certified	250,000	11.38%	\$250,000.00
IP-NEOM-25	QEC Certified	200	3.19%	\$70,000.00
GCC-CH4-S	QEC Certified	2,000	2.05%	\$45,000.00
WSC-GCC-S	QEC Certified	10,000	1.09%	\$23,841.96
E-SAF-ME-S	QEC Certified	10	1.02%	\$22,500.00
EGY-WREC-26	QEC Certified	5,000	0.71%	\$15,500.00
ADNOC-BNH3-26	QEC Certified	20	0.59%	\$13,000.00
UCC-S	QEC Certified	500	0.53%	\$11,648.50
BC-AFR-S	QEC Certified	75	0.51%	\$11,250.00
NEOMH2	QEC Certified	400	0.46%	\$10,000.00
ZET	QEC Certified	10,000	0.46%	\$10,000.00

### Exchange Fiat Balances

QAR	QAR	200,000.00	2.50%	\$54,945.05
USD	USD	50,000.00	2.28%	\$50,000.00
EUR	EUR	30,000.00	1.47%	\$32,400.00
AED	AED	100,000.00	1.24%	\$27,247.96
SAR	SAR	50,000.00	0.61%	\$13,333.33
BHD	BHD	10,000.00	0.17%	\$3,773.58
OMR	OMR	5,000.00	0.09%	\$1,923.08

QII QEC Certified  Powered by IBM Quantum™ Security (Mock)

Enterprise Controls Audit Log

## ZET-EX Clean Energy Trading

### ↗ Smart Contracts Hub

Automate your trading and impact strategies. Select a template, configure it, and deploy it to your portfolio.

#### Template Library

##### ↗ Dollar-Cost Averaging (DCA)

Investing

Automatically invest a set amount of money in a chosen asset at regular intervals to average out purchase price over time.

##### ↘ "Buy the Dip" Trigger

Automation

Automatically purchase an asset if its price drops by a specified percentage within a 24-hour period.

##### ↗ Dynamic Impact Balancer

Portfolio

Automatically rebalance your portfolio to maximize environmental impact. This contract periodically sells a portion of your lowest ESG-rated assets to buy higher-rated ones, keeping your investments aligned with your green goals.

##### ↗ Yield-to-Offset Treasury

Impact

Put your idle assets to work for the planet. This contract stakes your yield-bearing tokens and uses the rewards to automatically purchase and retire carbon credits, making your portfolio self-offsetting.

##### ↗ Intelligent Arbitrage Swap

Automation

Be the market maker. This advanced contract capitalizes on temporary price inefficiencies between different classes of green assets, swapping between them when their price ratio



# ZET-EX: Trading Screens & Workflow



**ZET-EX** Clean Energy Trading

Home Spot Pro Trade

Browse Assets My Holdings (5) Staking P2P Market

### Browse Tokenised Energy Assets

#### Featured Projects

- Noor Abu Dhabi Tokenized Solar Farm  
Tokenized Infrastructure - Noor Abu Dhabi Solar...  
ESG: A  
15.50 AED  
APY: 4.5%
- 44.01 Oman DAC Project Equity  
Tokenized Infrastructure - 44.01 DAC Facility 1  
ESG: AA  
42.00 GWC  
APY: 5.2%
- ZET-EX GCC Compliance Carbon Index  
Green Index - Basket of GCC Compliance Assets  
ESG: A  
88.45 GWC  
APY: 1.5%
- ZET-EX Global Removal Index  
Green Index - Basket of Carbon Removal Credits  
ESG: A  
185.90 GWC  
APY: 2.2%

Filters: All All ESG: All Stakable Gov. Enabled

Impact Focus: All Renewable Energy Generation CO2 Reduction Clean Mobility

**44.01 Oman DAC Project Equity**  
OMDAC - Tokenized Infrastructure  
New APY: 5.2% \* Rising

Own a piece of a cutting-edge Direct Air Capture project in Oman, sequestering CO2 permanently.

Price: 42.00 GWC  
Available: 150,000 / 500,000  
Impact: CO2 Reduction  
Chain: KII-Chain (Mock) ESG: AA

Details Buy Tokens

**ZET-EX GCC Compliance Carbon Index**  
ZETGCC - Green Index  
Index APY: 1.5%  
Tracks the performance of a basket of compliance carbon instruments in the GCC ...

Value: 88.45 GWC  
↑1.50%  
Available: 10,000,000 / 10,000,000  
Impact: CO2 Reduction  
Chain: KII-Chain (Mock) ESG: A

Details Buy Index

**ZET-EX Global Removal Index**  
ZETREM - Green Index  
Index APY: 2.2% Hot  
Tracks a basket of premier, technology-based carbon removal credits, including D...

Value: 185.90 GWC  
↑2.10%  
Available: 2,000,000 / 2,000,000  
Impact: CO2 Reduction  
Chain: KII-Chain (Mock) ESG: A

Details

### 44.01 Oman DAC Project Equity (OMDAC)

#### 44.01 Oman DAC Project Equity

Type: Tokenized Infrastructure New  
Underlying: 44.01 DAC Facility 1  
Impact Focus: CO2 Reduction

Own a piece of a cutting-edge Direct Air Capture project in Oman, sequestering CO2 permanently.

Overview Impact



**Tokenomics**

Price/Token: 42.00 GWC  
Yield Type: Appreciation  
Est. Staking APY: 5.2% (ZET)  
Supply (150,000 / 500,000 available):

**Mock Blockchain Information**

Chain: KII-Chain (Mock)  
Standard: KRC-721  
Contract Address: 0x456...def



**Realtime creation of µRECs from IoT sensors at 1Kwh level live on Kaspa BlockDAG**

## HFT Simulation: Real-Time REC Minting via Kaspa

This demonstrates how high-frequency data from a solar farm can be settled on Kaspa to create micro-Renewable Energy Certificates (µREC) in real-time. Each "SUCCESS" message represents a near-instant, verifiable transaction on the blockDAG.

 Start Stream

 Stop Stream





# Why Kaspa Succeeds (and What's Next)

## 158 million

Transactions in a single day

*with average fee of \$0.00003 — no slowdowns, no bottlenecks*

### Measured Outcomes

**Sub second**

Transaction time

**10second**

Full Confirmation time

**1000s+**

Transactions per second

**98.7%**

Cost reduction vs legacy

**100%**

Network uptime

### R&D Edge

DAGKnight + vProgs path close the loop on speed and interoperability

kHeavyHash: efficient today, optimized for optical processors tomorrow

### Decentralisation Signal

- **Satellite node pilot: testing platform in space**
- Proof of no single point of failure - true geographic distribution, true decentralisation



Today is Kaspa's 4th birthday  
4 years of live network operation.





The Trust Grid - A New Utility

