



# MIZY INFINITY NETWORK

Dual-Utility Blockchain Infrastructure Protocol  
Built for the BNB Chain Smart Builders Challenge

FOUNDER

Nthabiseng Mahlatsi

LOCATION

Soweto, South Africa

STATUS

Validated Prototype | BNB Chain Compatible

## Energy Crisis

- Africa loses billions annually to load shedding
- 600 million Africans lack reliable electricity
- Municipal grids are unreliable and opaque
- No real-time accountability mechanisms

## Water Crisis

- Water billing systems are opaque and inefficient
- Municipal leakages result in massive revenue loss
- Real-time accountability is nearly impossible
- No transparent usage tracking infrastructure

## The Critical Gap

- No transparent dual-utility accounting infrastructure exists in emerging markets
- No trusted on-chain verification systems for public utilities
- No scalable protocol combining energy and water management

# WHY NOW? Perfect Market Timing

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## Rising Municipal Debt

African municipalities face unprecedented infrastructure debt

2

## ESG Reporting Pressure

Global mandates require verifiable impact data

3

## Blockchain Maturity

BNB Chain delivers low-cost, high-speed transactions

4

## Transparency Demand

Citizens demand real-time public accountability

# \$2.5 Trillion

GLOBAL UTILITY INFRASTRUCTURE MODERNIZATION MARKET

## 1 Sovereign Node Registry

- Each household registered as a Sovereign Node
- Unique identifier on the blockchain
- Immutable registration records
- Self-sovereign utility identity

## 2 Dual-Utility Accounting

- Energy: Tracked in kilowatt-hours (kWh)
- Water: Tracked in liters
- Both utilities on single transparent ledger
- Unified billing and verification

## 3 Event-Based Transparency

- Every transaction emits immutable events
- Real-time audit trail for all stakeholders
- Public verification of all utility payments
- Zero-dispute billing through on-chain records

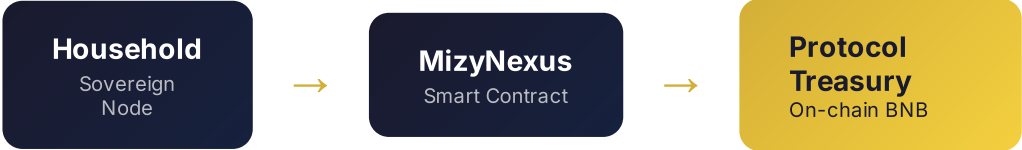
*"The protocol captures value through transaction-based fees while enabling transparent public utility accounting."*

```
pragma solidity ^0.8.20; contract MizyNexus { struct SovereignNode { string
nodeId; uint256 energyKwh; uint256 waterLiters; bool isActive; } mapping(string
=> SovereignNode) public registry; event NodeRegistered(string nodeId);
event UtilityPaid(string nodeId, uint256 amount, bool isWater);
function registerNode(string memory _nodeId) public; function payUtility(string
memory _nodeId, uint256 _amount, bool _isWater) public payable;
function withdraw() public; }
```

Function	Purpose
registerNode()	Register new Sovereign Node
payUtility()	Record energy/water payment
withdraw()	Protocol treasury management

## Technical Specs

- **Contract:** MizyNexus.sol
- **Language:** Solidity 0.8.20
- **Status:** Validated Prototype (Audit Pending)
- **Test Environment:** Remix VM (London)
- **Target Chain:** BNB Smart Chain Compatible



1

## Contract Deployment

Network: Remix VM (London)  
Target: BNB Chain Compatible

✓ DEPLOYED

2

## Node Registration

```
registerNode("SOWETO_001")
```

✓ REGISTERED

3

## Energy Payment

```
payUtility(id, 100, false)
```

✓ 100 kWh RECORDED

4

## Water Payment

```
payUtility(id, 200, true)
```

✓ 200L RECORDED

4+

SUCCESSFUL TRANSACTIONS

100%

EVENT EMISSION SUCCESS

0

CRITICAL ISSUES FOUND

*Testing completed on Remix VM (London). BNB Smart Chain mainnet deployment pending security audit.*



**Transaction Fees**  
1-3% fee on all utility payments



**Node Onboarding**  
One-time infrastructure registration



**SaaS Dashboard**  
Municipal analytics subscription



**Governance Layer**  
Future MIN token participation

Revenue Stream	Year 1 (10 Nodes)	Year 2 (50 Nodes)	Year 3 (100 Nodes)
Transaction Fees	\$1,200	\$12,000	\$36,000
Node Onboarding	\$5,000	\$25,000	\$50,000
SaaS Subscriptions	\$2,400	\$12,000	\$24,000
Total Projected Revenue	\$8,600	\$49,000	\$110,000

\$2.5T

TAM

Global utility modernization

\$180B

SAM

Emerging markets digitization

\$5B

SOM

Africa blockchain adoption (2027)



Source: TAM based on global utility infrastructure modernization estimates (World Bank, IEA)



Feature	Traditional	MizyNexus
Transparency	Paper-based	On-chain, immutable
Audit Trail	Manual, error-prone	Automated, event-based
Dual-Utility	Separate systems	Single integrated protocol
Real-time Data	Delayed (days/weeks)	Instant verification
Scalability	Limited by bureaucracy	Blockchain-native

## ★ Unique Value Proposition

- Among the first dual-utility blockchain protocols for emerging markets
- Red Seal certified engineer founder
- Validated prototype with working smart contract
- Real-world pilot deployment planned

## Strategic Barriers to Entry (Our Moat)



### Infrastructure Expertise

Deep engineering knowledge



### Municipal Integration

Complex regulatory navigation



### Community Access

Rooted in Soweto



### Regulatory Navigation

African utility frameworks

**500**

tons/year

CO2 Reduction

**1.2**

GWh annually

Clean Energy

**2M**

liters

Water Tracked

**50+**

jobs

Local Technicians

**100**

families

Households Empowered

*\* Projected impact at 100 nodes by 2027. Based on pilot unit economics validated at 10-node scale.*

## Environmental

- Carbon footprint reduction
- Clean energy monitoring
- Water conservation

## Social

- Local job creation
- Reliable utilities for education
- Zero billing disputes

## Governance

- 100% on-chain transparent auditing
- Immutable transaction history
- Verifiable ESG data



## Nthabiseng Mahlatsi

Founder & CEO

- ✓ Red Seal Certified Electrical Engineer
- ✓ Deep infrastructure expertise
- ✓ Based in Soweto, South Africa
- ✓ Blockchain & Web3 Developer



### Why This Matters

- **Local founder with technical credibility:** First-hand experience with infrastructure challenges in emerging markets
- **Engineering certification ensures quality:** Red Seal certification demonstrates professional standards
- **Community trust and relationships:** Deeply rooted in Soweto with established local networks

# Contact & Next Steps

FOUNDER

Nthabiseng Mahlatsi

EMAIL

[tholwana28@gmail.com](mailto:tholwana28@gmail.com)

PHONE

+27 62 821 3248

GITHUB

[github.com/MahlatsiTech](https://github.com/MahlatsiTech)

TWITTER

[@tholwana28](https://twitter.com/tholwana28)

LINKEDIN

[Nthabiseng Mahlatsi](#)

Competition Wallet: 0x2E20e9D6C37fE79ed3e91F75Ec332c51B7a77c35 | Location: Soweto, South Africa

1. Due Diligence

2. Pilot Visit

3. Partnership

4. Investment

*"Infrastructure transparency is not optional — it's essential for economic development. Mizy Infinity Network modernizes public utilities through decentralized transparency, enabling infrastructure-backed digital economies."*

Mizy Infinity Network © 2026 | Built for Infrastructure Transparency on BNB Smart Chain