# Waste Management DePIN Tokenomics

### Token Architecture

WASTE Token (Primary Utility Token)

**Symbol**: WASTE **Network**: Solana **Type**: SPL Token

**Total Supply**: 1,000,000,000 WASTE

**Decimals**: 6

#### **Token Distribution**

```
Community Rewards: 40% (400M WASTE)
├── User Participation: 25% (250M)

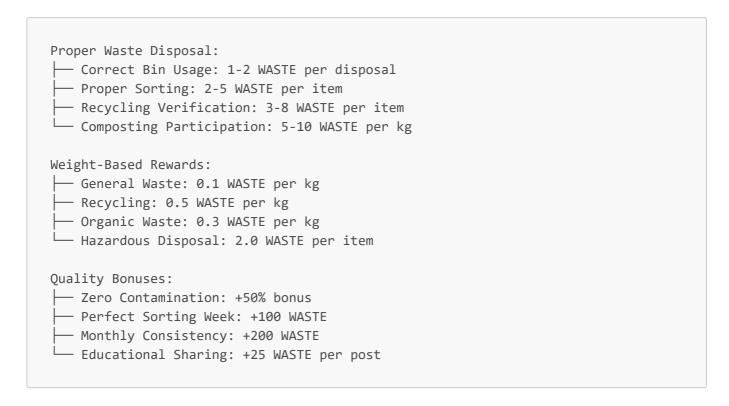
    Node Operators: 10% (100M)

└─ Municipal Partners: 5% (50M)
Development Fund: 20% (200M WASTE)
— Core Development: 12% (120M)
── Hardware Subsidies: 5% (50M)
Research & Innovation: 3% (30M)
Ecosystem Growth: 15% (150M WASTE)
── Partnerships: 8% (80M)
 — Marketing: 4% (40M)
Community Grants: 3% (30M)
Team & Advisors: 10% (100M WASTE)
├─ Core Team: 7% (70M) - 4 year vest
─ Advisors: 2% (20M) - 2 year vest
└── Early Contributors: 1% (10M)
Treasury Reserve: 10% (100M WASTE)
── Emergency Fund: 5% (50M)
  — Governance: 3% (30M)
Future Expansion: 2% (20M)
Liquidity & Exchange: 5% (50M WASTE)
├─ DEX Liquidity: 3% (30M)
 — CEX Listings: 1.5% (15M)
☐ Market Making: 0.5% (5M)
```

## **Earning Mechanisms**

Individual User Rewards

#### **Basic Participation**



#### **Advanced Participation**

```
Community Leadership:

Waste Auditing: 50-100 WASTE per audit

Neighbor Education: 25 WASTE per session

Contamination Reporting: 10-20 WASTE per report

Event Organization: 200-500 WASTE per event

Data Contribution:

Photo Verification: 5 WASTE per photo

Bin Status Updates: 2 WASTE per update

Route Optimization: 10-50 WASTE per suggestion

Problem Reporting: 15-30 WASTE per report
```

### Household & Community Rewards

### **Household Achievements**

```
Monthly Targets:

├── 90% Proper Sorting: 100 WASTE bonus

├── 50% Waste Reduction: 200 WASTE bonus

├── Zero Contamination: 150 WASTE bonus

└── Composting Adoption: 300 WASTE bonus

Seasonal Challenges:

├── Spring Cleaning: 500 WASTE (proper disposal)

├── Summer Composting: 400 WASTE (organic waste)
```

```
├── Fall Leaf Collection: 300 WASTE (yard waste)
└── Holiday Recycling: 600 WASTE (packaging)
```

### **Neighborhood Competitions**

```
Community Metrics (Monthly):

Lowest Contamination Rate: 1000 WASTE pool
Highest Participation: 800 WASTE pool
Best Waste Reduction: 1200 WASTE pool
Innovation Award: 500 WASTE pool

Distribution Method:
Top 3 Neighborhoods: 60% of pool
Participation Bonus: 25% of pool
Improvement Award: 15% of pool
```

### **Node Operator Rewards**

### **Hardware Node Operators**

```
Basic Fill Monitoring (Type A):

Uptime Rewards: 10-20 WASTE per day

Data Quality: 5-15 WASTE per day

Maintenance Bonus: 100 WASTE per month

Upgrade Incentive: 500 WASTE per upgrade

Advanced AI Nodes (Type B):

Base Operation: 25-40 WASTE per day

AI Accuracy Bonus: 10-30 WASTE per day

Community Impact: 50-100 WASTE per week

Innovation Rewards: 200-500 WASTE per feature

Performance Multipliers:

99%+ Uptime: 1.5x multiplier

Zero Downtime Month: 2.0x multiplier

Community Feedback >4.5: 1.3x multiplier

Data Accuracy >95%: 1.4x multiplier
```

#### **Collection Vehicle Operators**

## Token Utility & Spending

### **Redemption Options**

#### **Local Benefits**

### **Environmental Products**

```
Sustainability Store:

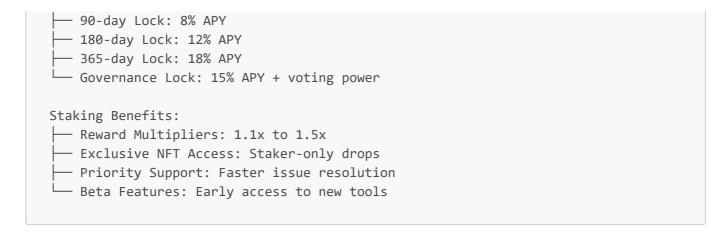
- Reusable Bags: 200 WASTE
- Compost Bins: 1,500 WASTE
- Water Bottles: 800 WASTE
- Solar Chargers: 3,000 WASTE
- Bike Accessories: 1,200 WASTE
- Garden Supplies: 500-2,000 WASTE

Educational Materials:
- Sustainability Books: 400 WASTE
- Workshop Access: 300 WASTE per session
- Online Courses: 800 WASTE per course
- Certification Programs: 2,000 WASTE
```

### Staking & Governance

### **Staking Rewards**

```
Staking Pools:
├── 30-day Lock: 5% APY
```



### **Governance Rights**

```
Voting Power:

— 1 WASTE = 1 vote (liquid tokens)

— Staked tokens = 1.5x voting power

— Long-term stake = 2x voting power

— Node operators = 3x voting power

Governance Proposals:

— Token Economics: Reward rate changes

— Feature Development: New functionality

— Partnership Approvals: Municipal contracts

— Treasury Management: Fund allocation

— Protocol Upgrades: Technical improvements
```

## **Economic Sustainability**

Token Burn Mechanisms

#### **Deflationary Pressure**

```
Transaction Fees:

— 0.1% burn on all token transfers

— 1% burn on redemption transactions

— 2% burn on large stake withdrawals

— 0.5% burn on governance proposals

Service Fees:

— Premium Features: 50% of fees burned

— API Access: 30% of revenue burned

— Data Licensing: 25% of income burned

— Hardware Upgrades: 10% of cost burned

Quarterly Burns:

— Excess Treasury: Up to 1% of supply

— Partnership Profits: 50% of net income
```

```
├── Carbon Credit Sales: 100% of proceeds
└── Municipal Contracts: 20% of revenue
```

#### Revenue Streams

### **Primary Revenue**

```
Municipal Contracts:

— SaaS Licensing: $2-5 per bin per month

— Data Analytics: $10-25k per city annually

— Consulting Services: $50-200 per hour

— Custom Development: Project-based pricing

Hardware Sales:

— Node Hardware: 20-30% markup

— Installation Services: $50-100 per node

— Maintenance Contracts: $20-40 per node/year

— Upgrade Services: Premium pricing

Data Monetization:

— Research Licensing: $5-50k per dataset

— API Access: $0.01-0.10 per call

— Predictive Analytics: Subscription model

— Benchmarking Reports: $500-5000 per report
```

### Secondary Revenue

```
Token Economy:

Transaction Fees: 0.1-1% of volume

Staking Services: 10% of rewards

Governance Fees: Proposal deposits

Premium Features: Subscription model

Partnerships:

Recycling Facilities: Revenue sharing

Waste Haulers: Efficiency bonuses

Equipment Manufacturers: Referral fees

Technology Integrators: Licensing deals
```

## **Market Dynamics**

**Token Price Drivers** 

### **Positive Pressure**

- Increased municipal adoption
- Growing user participation

- Token burn mechanisms
- Staking demand
- Partnership announcements
- Regulatory clarity
- Technology improvements

### **Negative Pressure**

- Market volatility
- Regulatory uncertainty
- Competition
- Technical issues
- Reduced participation
- Economic downturns

### Long-term Sustainability

### 5-Year Projections

```
Year 1: Foundation

— 10,000 active users

— 500 deployed nodes

— 5 municipal partnerships

— $2M annual revenue

Year 3: Growth

— 100,000 active users

— 5,000 deployed nodes

— 50 municipal partnerships

— $25M annual revenue

Year 5: Maturity

— 1,000,000 active users

— 50,000 deployed nodes

— 500 municipal partnerships

— $200M annual revenue
```

### **Success Metrics**

- **User Retention**: >80% monthly active users
- Node Uptime: >99% network availability
- **Token Velocity**: Healthy circulation patterns
- **Governance Participation**: >30% voter turnout
- **Revenue Growth**: 50%+ year-over-year
- **Environmental Impact**: Measurable waste reduction

Sustainable tokenomics driving real-world environmental impact through community participation and technological innovation.