FLOW STEWARDISM

An Economic Operating System for the Age of Abundance

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Executive Summary

Four converging forces — abundant energy, autonomous labor, pocket-scale AGI, and extending human healthspan — are collapsing the marginal cost of production, cognition, and care toward zero. When they fully arrive, the economics of scarcity will no longer describe reality. The question is not *whether* this shift occurs, but what economic operating system replaces the one designed for a world of limits.

Flow Stewardism is that operating system. It is a governance and incentive framework that treats energy, matter, information, attention, and credit as living flows to be kept clean, coherent, and compounding. Its core directive — *keep it flowing, help others rise, don't let anyone fall* — is not aspirational language. It is a structural protocol embedded in every mechanism from currency design to governance architecture.

This paper presents the complete framework: the macroeconomic thesis, the system architecture, the quantitative model, the transition pathway, and the governance design. It draws on stock-flow consistent modeling developed with economist Steve Keen, abundance-lever parameterization informed by Ramez Naam's energy-systems research, and a first-principles simulator built by Tyrone Keynes that strips politics and tests what is physically and technically achievable.

The central finding is that the cost of an abundant life — defined as the income level beyond which additional dollars produce no additional wellbeing — is already collapsing. Sixty percent of current American household spending purchases nothing of value; it pays for the friction of navigating a system designed for a different century. Strip that friction through universalized services whose marginal costs approach zero, and the true cost of a dignified, abundant life falls below $4,000 per month per household.

Flow Stewardism does not cap the upside. Entrepreneurship remains the primary engine. What changes is the floor: substantial, not subsistent. And the incentive architecture: regenerative, not extractive.

1. The Thesis: Why Scarcity Economics Is Failing

1.1 The Convergence

Every economic and political system ever devised — capitalism, socialism, communism, feudalism, mercantilism — was engineered to answer a single question: who gets the limited pie, and how do we decide? Liberal versus conservative is not a philosophical divide; it is competing distribution logic for the same assumption of scarcity.

That assumption is breaking. Four technology curves are reaching inflection simultaneously:

Convergence Driver	Mechanism	Economic Impact
Abundant Energy	Solar-storage and micro-fission trending marginal kWh toward negligible cost	Energy ceases to be a binding constraint on production
Autonomous Labor	Humanoid robots and AI agents performing physical and cognitive work 24/7	Marginal labor cost collapses; wage-based distribution logic fails
Pocket-Scale AGI	On-device models delivering expert cognition to every individual	Knowledge asymmetry — the basis of professional rent-seeking — dissolves
Radical Longevity	Healthspan extending toward 120–150 years via AI diagnostics, gene editing, and personalized therapeutics	Career, savings, and governance horizons fundamentally shift

These are not speculative projections. Solar energy costs have fallen 85% in a decade. Gene sequencing dropped from $100 million to $200 per genome. Humanoid robots from Unitree and Tesla are entering pre-commercial deployment at price points below $20,000. The pattern — expensive-to-exclusive becomes cheap-to-universal — is repeating across every domain simultaneously.

1.2 The Endogenous Money Insight

Before addressing abundance, one persistent myth must be dismantled: that money is scarce.

In modern economies, money is created endogenously. When a commercial bank extends a loan, it simultaneously creates a deposit — an asset for the borrower and a liability for the bank. No vault is opened. No prior savings are transferred. Ninety-two cents of every new dollar in the US economy originates this way, confirmed by peer-reviewed research and the Bank of England itself.

> *Money scarcity is a design choice, not a physical law. The true constraint is not whether money can be created, but whether newly created money expands productive capacity or inflates existing asset prices. We can design differently.*

Banks are constrained by capital requirements, regulation, and credit demand — not by deposits. The digital payments infrastructure already functions as a distributed ledger of extraordinary

sophistication. The infrastructure of abundance exists. What it lacks is an incentive architecture designed for abundance rather than extraction.

1.3 The New Axis

Strip out left and right. Strip out every ideological label written for a world of physical scarcity. What remains is one clarifying question: what incentive structures produce regenerative, compounding, dignified outcomes — and which produce extractive, diminishing, unsustainable ones?

This reframes the entire political and economic debate. A monopoly is not problematic because it is capitalist; it is problematic because it is extractive — it stops the flow. A welfare program is not virtuous because it is socialist; it is only virtuous if it is generative — if it creates capacity rather than dependency. Entrepreneurship is not valuable because it is free-market; it is valuable because, done right, it is the most regenerative force in human civilization — it creates flows where none existed.

The relevant axis is not left versus right. It is regenerative versus extractive.

2. Flow Stewardism: The Framework

2.1 Definition

Flow Stewardism is a governance and incentive framework that treats energy, matter, information, attention, and credit as living flows to be kept clean, coherent, and compounding.

The metaphor is deliberate: the riverbed does not matter; the river's health does. In an economy defined by physical scarcity, the rational strategy was to hoard assets, corner markets, sit on capital, and extract rent from chokepoints. In an economy where marginal costs approach zero, the value of owning stocks erodes. The new advantage comes from stewarding flows.

2.2 Core Principles

Principle	Description	Operational Implication
Thermodynamic Honesty	Tie money to real-world energy and material constraints; reject accounting fictions	Currency and KPIs anchored to measurable physical flows (kWh, CO_2e, tonnes)
Circulation Over Hoarding	Velocity, reuse, and regeneration outperform inventory accumulation	Demurrage on idle balances; flow dividends on improved throughput
Transparency by Default	Verifiable ledgers, open records, and searchable decisions	Public dashboards; citizen + AI co-auditors; radical transparency rails
Incentives = Flow Health	Reward reducing waste, latency, and entropy — not cornering markets	Dynamic tolls and rebates tied to measured system performance
Anti-Monopoly	Detect control points early; design for portability and exit	Every bottleneck is a power concentration point; structural forkability
Human Dignity as Floor	Flows serve people. The floor is substantial, not subsistent	Universal stipend; no one falls; entrepreneurship uncapped above the floor

2.3 The One Commandment

> *Keep it flowing. Help others rise. Don't let anyone fall.*

This is not sentiment. It is a protocol. Every mechanism in the system — from currency design to governance to the measurement of value — is built to make these three directives structurally inevitable rather than dependent on individual virtue.

2.4 What Flow Stewardism Does Not Do

- It does not cap what a person can earn, build, or create. There is no ceiling.

- It does not abolish markets. Markets remain powerful discovery mechanisms for preferences and relative value.
- It does not require a new government, a revolution, or the end of entrepreneurship.
- It does not depend on human virtue. The architecture makes flow-positive behavior the path of least resistance.

3. The Cost-Collapse Thesis

3.1 The Universal Blankety-Blank

Universal Basic Income has been stuck in the same groove for decades: how much should it be, who pays for it, won't it kill incentive? All valid questions. All asked within the scarcity frame. All missing the deeper point.

The deeper point is that income is not the right unit of measurement. The right unit is the **cost of an abundant life** — and that cost is collapsing, one universalized service at a time.

Happiness research by Kahneman, Killingsworth, and others establishes that in the United States, after a household earns roughly $150,000 per year, additional income does not produce additional wellbeing. That gives us $12,500 per month as a baseline. The question then becomes: how much of that needs to be cash income, and how much can be delivered as universalized services whose marginal cost is approaching zero?

3.2 The Friction Breakdown

The average American household earns $104,207 before tax and takes home roughly $80,000 after federal and state income taxes. Nearly a quarter of every dollar earned never reaches the household before they spend a cent on food, housing, or healthcare.

Expense Category	Monthly Cost	Nature	Flow Stewardism Treatment
Federal and state taxes	$2,017	System friction	Endogenous funding replaces taxation
Commuting (direct + lost time)	$1,495	System friction	Eliminated by remote work + autonomous transport
Healthcare and insurance (40% admin overhead)	$516	System friction	Universal Health Service; AI diagnostics collapse cost of care
Utilities	$380	System friction	Universal Energy Service; solar + storage trending to zero marginal cost
Education (debt service + credentialing)	$200	System friction	Universal Education Service; AI tutors at zero marginal cost
Total System Friction	**$6,948**	**60% of spending**	**Eliminated through universalized services**

> *Sixty percent of everything Americans spend today buys nothing. It pays for friction — the cost of navigating a system designed for a different century.*

Strip that friction and the true cost of an abundant life falls to $4,587 per month. Add a household robot — a Unitree G1 available today for $267 per month financed, or a Tesla Optimus at $417 per month by 2028 — and the cost drops below $4,000. The floor is not subsistent. It is substantial.

3.3 The Power Question

Each universalized service does not merely reduce cost. It breaks a control lever:

- **Universal Health Service** breaks the insurance industry's control lever. The US healthcare system spends $40,305 per household per year; 55% buys zero clinical outcomes.
- **Universal Education Service** breaks the credentialing cartel. The education system spends $13,588 per household per year; 36% is bureaucracy and debt service.
- **Universal Energy Service** breaks the energy monopoly's extraction point as marginal cost approaches zero.
- **Universal Government Income** replaces taxation — the master control lever of civilization — with endogenous funding.

The friction is not a bug. It is the business model. The Government Accountability Office confirmed $162 billion in federal improper payments in FY2024 and estimates total annual fraud at $233 to $521 billion. Every bottleneck in the flow is a power concentration point. Flow Stewardism does not just keep value moving — it keeps power from pooling.

4. System Architecture

Flow Stewardism operates through five interlocking rails, each designed to run alongside legacy systems and scale as proof accumulates.

4.1 Lumenix (LMX) — Kinetic Currency

Lumenix is a kinetic currency with a gentle holding fee (demurrage) that discourages hoarding and funds the commons. Idle balances decay; spending, contributing, or reinvesting does not. The decay rate (λ) is a tunable parameter, with preliminary simulations showing $\lambda \approx 0.02$ per month as optimal for maintaining velocity without punishing prudent saving.

- Stipend floor: 5,000 LMX per adult per month, auto-topped to cover local essentials
- Decay is visible in every wallet, creating continuous incentive to circulate
- Runs alongside fiat; dual-rail design ensures no one is forced to adopt

4.2 Active-Steward Tokens (ASTs) — Rights Tied to Responsibility

ASTs grant rights to scarce assets — land, water, bandwidth, spectrum — but pay only while sensors and audits confirm active stewardship. Neglect auto-reduces or reassigns the right. This replaces passive ownership with active care as the basis of resource allocation.

- 2-of-3 evidence standard: satellite imagery, in-situ sensors, independent audit
- Grace periods, error budgets, and 48-hour appeal via sortition jury
- Anti-gaming: biometric + social + liveness attestation; diminishing-return rewards

4.3 Purpose Passports — Contribution as Status

A verifiable record of completed missions, care hours, learning gains, and stewardship outcomes. Purpose Passports replace the résumé with a dynamic proof of contribution. They earn access and priority — not passive income. Status accrues to those who give, not those who accumulate.

4.4 Fractal Assemblies — Governance at the Right Scale

Decisions are made at the scale appropriate to each decision: local for local, regional for regional, global for global. Nested and composable rather than hierarchical and rigid.

- Quadratic voting caps whale influence; sortition juries provide legitimacy
- AI agents represent individual values in deliberative processes — not party platforms
- K-dimensional preference expression replaces binary vote between pre-packaged options
- Rules auto-sunset without proof of benefit; governance is forkable at every level

4.5 Proof-of-Benefit Receipts — The Verification Layer

Every funded action in the system must produce verifiable receipts:

Receipt Type	Measurement	Verification Method
Energy	kWh delivered / outage hours avoided	Smart meters; SAIDI/SAIFI deltas
Emissions	kg/tonnes CO_2e removed or avoided	Fuel displacement factors; ZK summaries
Water	Liters clean water / non-revenue water avoided	SCADA + handheld audits; NRW trend
Connectivity	Mbps-hours delivered	Backhaul and local uptime logs
Health	DALYs avoided	Outpatient proxy/claims; standardized mapping
Education	Learning score delta	AI-tutor assessments; pre/post measurement
Nature	Ecosystem index points	2-of-3 evidence (satellite/diver/local sensor) + appeals

5. The Quantitative Model

5.1 Objective and Scoreboard

The model optimizes a single metric: **WLR = Human Welfare Index (HWI) / Ecological Footprint (EF)**. Higher WLR means more wellbeing per unit of planetary load. This is the only scoreboard that matters.

The model was developed with economist Steve Keen using stock-flow consistent methodology, parameterized with Ramez Naam's energy-systems expertise, and built in Ravel by Tyrone Keynes. It strips politics entirely — this is a "what's physically and technically possible" scaffold constrained only by energy, materials, manufacturing throughput, installation speed, minerals refining, AI energy use, climate shocks, and human learning time.

5.2 Seven Stocks (Minimal State Variables)

Stock	Symbol	Unit	What It Captures
Clean Energy Capacity	E	kW, kWh	Installed clean generation and storage
Virgin vs. Circular Materials	Mv / Mc	Tonnes	Material throughput and recycling share
Ecosystem Integrity	N	Index 0–100	Reef, soil, and forest health composite
Health Capital	H	Healthy life-years	DALYs avoided; healthspan extension
Skills and Learning Capital	S	Assessed gains	Education outcomes via AI-tutor measurement
Service Infrastructure Uptime	I	Percentage	Power, water, bandwidth, clinic availability
Resilience Buffers	R	Various	Storage, spares, parametric insurance coverage

5.3 Six Instruments

Every project in the system must execute one of six moves, and every move must emit verifiable receipts:

- **Convert:** Dirty to clean (energy transition, waste-to-resource)
- **Reduce:** Waste and leaks (efficiency, non-revenue water, food loss)
- **Regenerate:** Reef, soil, forest, watershed restoration
- **Redirect:** Fund health, learning, and service infrastructure
- **Resilience:** Storage, spares, parametric insurance
- **Reflexivity:** Sensors, audits, appeals — the system's ability to see and correct itself

5.4 Abundance Levers (Sliders with Learning Curves and Lags)

The model's core innovation is treating Diamandis-style abundance technologies as parameterized sliders, each with empirically grounded learning curves and real-world adoption lags:

Lever	Parameter	Effect
AI Efficiency	η_AI	Reduces education cost, improves coordination, accelerates discovery
Robotics Productivity	κ_R	Substitutes labor; drives marginal production cost toward zero
Clean Energy Learning Rate	L_E	Exponential cost decline in solar, storage, micro-fission
Materials Science	Mc↑	Increases circularity; reduces virgin extraction
Water Technology	Desal/NRW	Desalination cost collapse; non-revenue water reduction
Biotech and Health	D_b↓, L_x↑	Disease burden down, lifespan up
Connectivity	Uptime/reach	Global digital inclusion; knowledge flows everywhere

5.5 Stylized Equations

The model's core dynamics follow these relationships:

- **Energy intensity:** $e(t) = e_0 \cdot \exp(-g\_E(t))$
- **Emissions:** $CO_2e(t) = Y(t) \cdot e(t) \cdot (1 - E\_share(t)) \cdot (1 - abatement)$
- **Materials intensity:** $m(t) = m_0 \cdot \exp(-g\_M(t))$
- **Output:** $Y(t) = F(E, I, S, \kappa\_R, \eta\_AI)$ with diminishing returns and rebound parameter ρ

Total real output replaces Keen's Labor × Productivity × Energy term with f(Robot_stock, Energy_input, AI_coordination), maintaining a physical anchor while acknowledging near-zero marginal labor cost.

5.6 Scenario Matrix

The model runs six no-politics scenarios to identify which levers move WLR fastest and by how much:

Scenario	Constraint Tested	Key Variable
Best Physics	No binding constraints; maximum technical potential	Upper bound on WLR improvement
Manufacturing-Limited	Bottleneck in factory throughput and installation speed	Robot deployment rate; solar installation pace
Minerals-Limited	Critical mineral supply constraints (lithium, cobalt, rare earths)	Circular materials share; substitution rate

Scenario	Constraint Tested	Key Variable
AI-Footprint-Aware	AI energy consumption as countervailing force	Net energy balance after AI compute load
Rebound-Stress	Efficiency gains consumed by increased demand (Jevons paradox)	Rebound parameter ρ; net ecological gain
Climate Shock	Acute climate events during transition	Resilience buffer adequacy; recovery time

6. Financial Architecture

6.1 Godley Table Extension

The financial model extends Steve Keen's stock-flow consistent framework with new columns required for abundance-era economics. Every row still sums to zero — Godley discipline survives the upgrade:

Column	Role	Key Flows
UBI Treasury	Issues the stipend that replaces endogenous bank money as primary distribution mechanism	UBI_pay: credits Households each period
Robot-Capital Pool	Holds autonomous production assets that substitute for biophysical labor	Robot_capex (investment), Robot_dx (depreciation)
Debt-Resolution Fund	Receives transfers when automatic Jubilee fires (PrivateDebt/GDP > threshold θ)	Jubilee_xfer: Banks → Fund → Households
Abundance Buffer	Stores technology and resource windfalls; drains into UBI or public goods	Fed by energy dividends, robot levies, expiring tokens
AI Steward	Policy-loop column; owns no stocks but updates λ, θ, and UBI parameters each tick	Optimizes for minimum debt oscillation, maximum median welfare

6.2 Financial Stability Mechanisms

Preliminary simulations show that with demurrage rate $\lambda \approx 0.02$ per month and Jubilee trigger $\theta \approx 0.85$, the private debt ratio mean-reverts and output volatility falls below the classic Minsky threshold — even under 40% productivity shocks from robot deployment. Four mechanisms maintain stability:

- **Private-debt shrinkage:** The universal stipend reduces household borrowing need
- **Token half-life:** Decay flow (Token_decay = $\lambda \times$ Household_balance) prevents hoarding and circulation blockages
- **Automatic Jubilee:** When PrivateDebt/GDP exceeds θ, a transfer from Banks to Debt-Resolution Fund to Households resets liabilities before crisis ignites
- **AI early-warning:** The AI Steward column updates λ, θ, and UBI size each tick to keep debt ratio and robot-capacity utilization inside safe corridors

6.3 Capital Formation

- **Steward Revenue Bonds (SRBs):** Demurrage-exempt while locked; coupon paid from AST rents or infrastructure revenue; IRR reported in both LMX and real units (kWh, CO_2e, Mbps)

- **Milestone Escrows:** Funds release only on third-party verification (oracle committee + zero-knowledge reports)
- **LMX-C Clearing:** Bancor-style symmetric fees settle imbalances between zones; no global central bank required

7. The Governance Question

If Universal Government Income replaces taxation, who decides what gets funded? This is where every utopian economic model in history has broken down. The moment you eliminate the old power lever, you must replace it with something. If that something is a new centralized authority, you have recreated the problem with different branding.

7.1 The Architecture, Not the Authority

The answer is not a new authority. It is a new architecture:

- **Subsidiarity:** Decisions at the right scale for each decision — local for local, regional for regional, global for global. Nested and composable rather than hierarchical.
- **AI-mediated collective voice:** Personal AI agents represent your values in deliberative processes — not a party platform, not a lobbyist's budget, but your actual priorities expressed with full complexity.
- **K-dimensional preference:** Not a binary vote between pre-packaged options, but multidimensional expression that lets "I agree with some of this and not the rest" be heard by the system.
- **Forkability:** At every level, governance is forkable. If a fractal assembly fails to serve its constituents, they can fork and rebuild without permission.
- **Auto-sunset:** Rules expire without demonstrated proof of benefit. The default is dissolution, not persistence.

7.2 Anti-Capture Design

Power pooling is made architecturally impossible rather than merely discouraged:

- Quadratic voting caps the influence of any single actor
- Sortition juries provide random, representative decision-making for contentious issues
- Influence Gini monitoring triggers review when concentration exceeds thresholds
- Split powers: proposers, auditors, juries, and guardian councils cannot be held by the same actors
- Open-source alignment for personal AI agents prevents lock-in to any single provider

8. Transition Pathway

8.1 Pilot Design

Start small. Prove it. Scale what works.

Parameter	Specification
Zone size	50,000–250,000 residents
Duration	12–24 months; LMX and ASTs run alongside fiat
Stipend floor	5,000 LMX per adult per month; decay visible; auto-top-up tied to local essentials
AST scope	One ecological asset (mangrove/forest/watershed) + one digital asset (bandwidth)
Identity	Privacy-preserving uniqueness: biometric + social attestations + periodic liveness
Edge-AGI	Certified on-device models; per-user energy budget; open weight audits
Legal posture	Dual-rail; private-law charter + MOUs with utilities/ISPs; opt-out guaranteed

8.2 KPIs (Published Weekly)

Category	Metrics
Economic	LMX velocity; stipend utilization; SRB spread vs. municipal debt; real-unit IRR
Stewardship	Asset-health index vs. baseline; enforcement latency; appeal resolution < 72h
Governance	Participation %; influence Gini; forks initiated; disagreement reports
Trust / Privacy	Breaches = 0; mean time to disclosure; % decisions with model cards
Human Outcomes	Essentials access %; purpose participation %; wellbeing score (validated scale)

8.3 Disproof Conditions

Flow Stewardism is built to be falsifiable. The following conditions would halt or reverse the pilot:

- **False penalties > 1% per month** despite redundancy + appeals → ASTs not ready (revert to advisory)
- **SRB cost of capital > municipal + 300 bps** in two auctions → unattractive rail (pause and redesign)

- **Participation < 10% for 60 days** with benefits available → governance UX mismatch (fix before scaling)
- **Velocity fails to rise** with reasonable decay bands → tuning or trust issue (adjust λ, redesign wallet UX)

9. Measurement Framework

9.1 Headline Composites

Index	Formula	Cadence	Target
Human Welfare Index (HWI)	Average of normalized tiles W1–W7, each rescaled 0–100	Monthly	≥ 80; trip-wire < 70 for 2 months
Ecological Footprint (EF)	Sum of energy, materials, land/water, and waste pressures, normalized	Monthly	Falling trend ≥ 7%/yr; trip-wire: rising 2 months
Welfare-to-Load Ratio (WLR)	HWI / EF	Monthly	Rising trend; trip-wire: flat/falling 3 months

9.2 Welfare Tiles (Feed HWI)

Tile	Metric	Target
W1: Essentials Access	% households with 24/7 safe water, power, broadband (all three)	≥ 95%
W2: Service Uptime	Clinic/school/hub uptime %	≥ 97%
W3: Health Status	Days lost to illness per capita (inverted)	Improving ≥ 5%/yr
W4: Education Progress	AI-tutor completion rate + learning gain	≥ 85% completion; gain ≥ 0.5 SD/term
W5: Income Security	% adults whose stipend + receipts cover essentials	≥ 95%
W6: Subjective Wellbeing	5-item validated scale (0–10), normalized	≥ 75; trip-wire < 65
W7: Purpose Time	Hours/week in verified care, learning, stewardship	Rising ≥ 10%/yr

9.3 Load Tiles (Feed EF)

Tile	Metric	Target
L1: Energy Intensity	kWh per unit output; % clean	Intensity –10%/yr; clean share +10%/yr
L2: Emissions	CO_2e per capita (monthly)	–7–12%/yr
L3: Materials Circularity	Circular share %; virgin tonnage per capita	Circular ≥ 40% by year 2; virgin –10%/yr

Tile	Metric	Target
L4: Water Balance	Non-revenue water %; drought stress index	NRW < 20%
L5: Nature Health	NDVI/reef transects composite (0–100)	Rising trend
L6: Waste Diversion	% diverted from landfill	≥ 60% by year 2

10. Conclusion: From Default to Design

Every economic system humans have built was a response to scarcity. Every left-right debate, every redistribution argument, every policy fight over taxation and entitlement — all were variations on a single question: who gets the limited pie?

That question is becoming obsolete. Not metaphorically. Physically. The marginal cost of energy, cognition, production, and an expanding range of goods and services is collapsing toward zero. The infrastructure of abundance — digital payments, distributed ledgers, AI systems, renewable energy, robotics — already exists or is arriving faster than every forecast.

What has never existed is a coherent incentive architecture that aims all of these pieces at human flourishing rather than human friction. Flow Stewardism is that architecture.

> *The abundant life is not waiting on a technological breakthrough. It is not waiting on a political revolution. It is waiting on the decision to stop defending a default that was never chosen, and to start building what we already know will work better.*

The scoreboard is simple: maximize human welfare per unit of planetary load. The model is built: seven stocks, six instruments, abundance levers with learning curves and lags, published weekly. The governance is designed: fractal, forkable, falsifiable. The financial rails exist: kinetic currency, steward tokens, proof-of-benefit receipts, and revenue bonds.

The pilot is ready. The disproof conditions are published. The invitation is open.

Keep it flowing. Help others rise. Don't let anyone fall.

RebelAlliance.Earth
Dave Erickson | March 2026

Appendix A: Glossary

Term	Definition
Flow Stewardism	Governance and incentive framework treating energy, matter, information, attention, and credit as living flows to be kept clean, coherent, and compounding.
Lumenix (LMX)	Kinetic currency with gentle demurrage (holding fee) that discourages hoarding and funds the commons.
Active-Steward Token (AST)	Right to use a scarce asset that pays only while sensors confirm active care; neglect auto-reassigns the right.
Purpose Passport	Verifiable record of completed missions and contributions; earns access and status, not passive income.
Fractal Assembly	Nested, forkable governance with quadratic voting, auto-sunsets, and open audits.
WLR (Welfare-to-Load Ratio)	HWI / EF. The system's single scoreboard: more wellbeing per unit ecological load.
HWI (Human Welfare Index)	Composite of essentials access, service uptime, health, education, income security, wellbeing, and purpose time.
EF (Ecological Footprint)	Composite of energy intensity, emissions, materials circularity, water balance, nature health, and waste diversion.
Steward Revenue Bond (SRB)	Demurrage-exempt investment instrument; coupon paid from AST rents or infrastructure revenue.
Contribution Memory	Time-series record of who did what for whom and with what impact; replaces "store of value" with "proof of value."
Proof-of-Benefit Receipt	Verifiable outcome data (kWh, CO_2e, liters, Mbps, DALYs, learning gains, nature points) attached to funded actions.
Demurrage	A small periodic holding fee on idle currency balances that incentivizes circulation over hoarding.