

Smart-Contract Parameters for Telkes (Updated)

1. Core Emission Parameters (Multi-Stage Halving)

Parameter	Name	Value	Notes
INITIAL_REWARD	INITIAL_REWARD	50×10 ⁸	50 TKL
DECIMALS	DECIMALS	8	atomic precision
HALVING_INTERVALS	HALVING_EPOCH_BLOCKS[]	[525_600, 1_051_200, 2_102_400]	1x, 2x, 4x years
HALVING_REDUCTION_FACTORS	EPOCH_REDUCTION[]	[1, 2, 4]	divide reward by these factors per epoch
MAX_SUPPLY	MAX_SUPPLY	1_000_000_000×10 ⁸	Cap at 1B TKL

Reward Calculation:

epoch = index of first HALVING_EPOCH_BLOCKS where blockHeight < cumulative

reward = INITIAL_REWARD / EPOCH_REDUCTION[epoch]

2. Transaction Fees & Tiered Burn Logic

Call Type	Fee Rate (bp)	Burn Rate (bp)	Recipient Pool	Notes
Simple Transfer	10 (0.10%)	500 (5%)	FEE_POOL_ADDRESS	baseline
Contract Call	25 (0.25%)	750 (7.5%)	FEE_POOL_ADDRESS	covers execution & gas refund
Contract Deployment	100 (1.0%)	1000 (10%)	DEPLOY_POOL_ADDRESS	funds audit & ecosystem grants

Per-Transaction Logic:

fee = amount × feeRate_bp / 10_000

burnAmt = fee × burnRate_bp / 10_000

poolAmt = fee - burnAmt

_burn(burnAmt)

_transfer(sender, recipient, amount - fee)

_transfer(sender, poolAddress, poolAmt)

3. Adaptive Burn Rates

Metric	Trigger Threshold	New Burn Rate (bp)	Rationale
High Volume	7-day tx/sec ↑ 50%	+100 bp across all	dampen inflation when load spikes
Low Volume	7-day tx/sec ↓ 50%	-100 bp across all	encourage activity during lulls
DAO Proposal Override	on-chain vote passes	custom %	governed change to burn policy

Burn rate adjustments auto-execute at epoch boundaries based on on-chain oracle of recent throughput, but any DAO proposal can set a new baseline.

4. Revenue Buy-Back & Burn (Off-Chain)

REVENUE_BURN_BP: 1000 (10%) default, adjustable via DAO.

BUYBACK_POOL_ADDRESS: receives 90% of funds for staking & grants.

5. Governance & Staking (Unchanged)

Parameter	Value
PROPOSAL_DEPOSIT	10,000×10 ⁸
VOTING_PERIOD_SEC	604,800
QUORUM_BP	200 (2%)
EXECUTION_DELAY_SEC	172,800 (48h)

Next Steps:

- Review these tiers & thresholds.
- Decide on network-load oracle window & epoch breakpoints.
- Integrate on-chain oracles for adaptive burn triggers, or set fixed schedule via DAO.

This blueprint serves as the foundation for Telkes chain's inflation control and deflationary mechanisms.