Smart-Contract Parameters for Telkes

1. Core Emission Parameters

Parameter	Name	Value	Notes
Initial Block Reward	INITIAL_REWARD	50 * 10^DECIMALS	50 TKL, in atomic units
Decimals	DECIMALS	8	1 TKL = 10^8 units
Halving Interval	HALVING_INTERVAL_BLOCKS	1_051_200	~4 years @2 min blocks
Max Supply	MAX_SUPPLY	1_000_000_000 * 10^DECIMALS	Cap at 1B TKL
Block Time Target	TARGET_BLOCK_TIME_SEC	120	2 minutes per block
Difficulty Window	DIFFICULTY_WINDOW_BLOCKS	1024	Retarget every 1024 blocks
Difficulty Adjustment	DIFFICULTY_ADJUSTMENT_FACTOR	0.2	±20% per retarget

Reward-per-Block Calculation:

```
epoch = floor(blockHeight / HALVING_INTERVAL_BLOCKS)
reward = INITIAL_REWARD >> epoch   // halves each epoch
if reward < 1 then reward = 0      // stop when <1 unit
```

2. Transaction Fee & Burn Logic

Parameter	Name	Value	Notes
Base Tx Fee Rate	FEE_RATE_BP	10	0.10% of amount
Fee Burn Percentage	BURN_RATE_BP	500	5% of fee is burned
Fee Recipient	FEE_POOL_ADDRESS	–	receives 95% of collected fees

Per-Transfer Logic:

```
fee = amount * FEE_RATE_BP / 10000
burnAmount = fee * BURN_RATE_BP / 10000
poolAmount = fee - burnAmount
_burn(burnAmount)
_transfer(sender, FEE_POOL_ADDRESS, poolAmount)
_transfer(sender, recipient, amount - fee)
```

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

Parameter	Name	Value	Notes
Revenue Burn Rate	REVENUE_BURN_BP	1000	10% of bought-back tokens burned
Buy-Back Pool Address	BUYBACK_POOL_ADDRESS	–	holds 90% to fund staking & DAO

4. Governance & Staking Parameters

Parameter	Name	Value	Notes
Staking APY Cap	MAX_STAKING_APY_BP	500	Max 5% from fee pool
Proposal Deposit	PROPOSAL_DEPOSIT	10,000 * 10^8	10,000 TKL
Voting Period	VOTING_PERIOD_SEC	604800	7 days

Quorum Threshold | QUORUM_BP | 200 | 2% of staked TKL
Execution Delay | EXECUTION_DELAY_SEC | 172800 | 48 hours
Developer Notes:
- Use SafeMath or built-in checked arithmetic.
- Emit events on reward changes, fee burns, and buy-backs.
- When reward == 0, switch to fee-only issuance.
- Governance module integrates with ERC-20 hook or PoS staking.