Ethereum widens the road before it gets busy, so the toll stays near zero by design. Value for holders has to show up somewhere else.

Users pay a congestion toll (burned, which benefits every holder) and a tip (paid to the operators who stake). The toll is ~0.1 gwei and burn offsets ~2% of new issuance. All three recent lane additions came on a falling toll, and Glamsterdam, Ethereum's next upgrade, is built to let the limit rise ~2.5–3.3x more. Unless traffic roughly doubles first, the toll goes to ~zero. If not in fees, where does Ethereum's usage show up as value for holders?

01 · THE TOLL

~99%

The typical base fee has fallen ~99% since 2024.

A plain transfer that cost ~50¢ at 2024's typical fee costs under a cent now, at today's ETH price. Traffic roughly doubled over the same period.

P. 02–03

02 · THE SHARE COUNT

~1.1M vs ~22K

ETH issues ~1.09M a year and buys back ~22K.

Burn offsets ~2% of issuance, so supply grows ~0.9% a year. Burn would need to rise ~50x to break even.

P. 04

03 · THE POLICY

3 of 3

Lane additions that came while the toll was already falling.

The typical base fee was ~6, then ~1, then ~0.15 gwei before each step, and each step cut burn to ~0.1–0.5x. The stated aim is cheap, scalable computation, not toll revenue.

P. 06, 11

04 · THE STEP

~1.7–2.0x

Traffic growth needed to keep the toll above zero at 150M.

Glamsterdam would let the limit rise from 60M toward 150–200M. At flat traffic and measured elasticity, the toll goes to ~0 and what users pay goes to stakers, not burn.

P. 05, 07–09

05 · THE QUESTION

~⅕ → ~0

Holders' share of what users pay, today and after a step at flat traffic.

By design, fees won't carry the price. It has to rest on demand to own ETH: the bond (staking) and the money (collateral, reserve). The next installment tests those.

P. 09–10

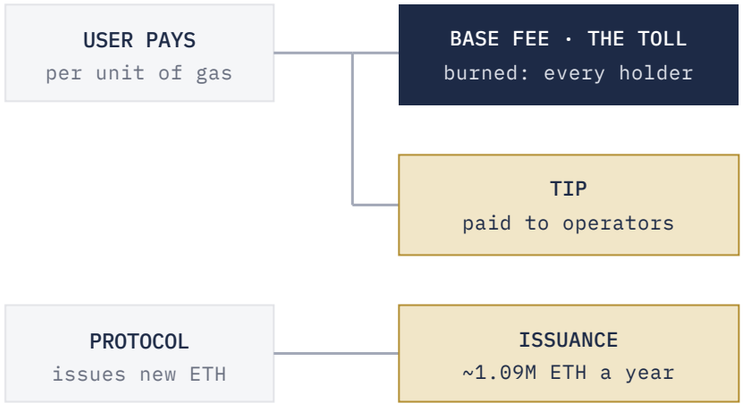
On-chain data from an Ethereum node and the beacon chain through 1 Nov 2026; supply and burn cross-checked to ultrasound.money; prices from Coinbase, 1 Nov 2026. Ranges are approximate and are the information. Method and caveats: page 12. The author holds no position in ETH. Not investment advice.

Ethereum charges a congestion toll that is burned, and a tip that goes to the operators.

Every transaction pays a base fee, the toll, set by how busy the network is, and a tip. The base fee is destroyed, so it benefits every holder. The tip goes to the operators who run the road, as does new ETH issued to them. Five words carry the rest of this deck.

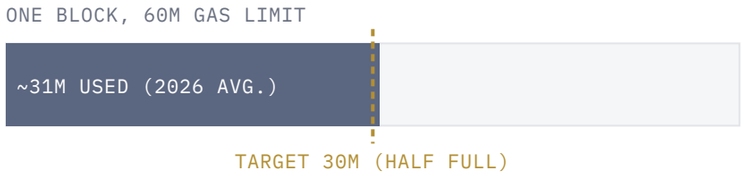
01 · WHERE A PAYMENT GOES

Two streams from users, one from the protocol. Only the toll reaches every holder.



02 · CONGESTION PRICING

The toll adjusts block by block to keep blocks about half full.



BUSIER THAN TARGET
toll rises up to 12.5% next block

QUIETER THAN TARGET
toll falls up to 12.5% next block

So blocks settle near half full, and the toll is whatever price makes that true.

03 · FIVE WORDS, USED THROUGHOUT

Gwei and protocol names stay on the method page.

BASE FEE	The congestion charge. Rises when the road is busy, falls when it isn't. **Burned**.
TIP	What users add on top to be included or ordered first. Paid to the block's operators.
BURN	ETH destroyed by the base fee. Works like a **buyback**: fewer ETH, same network.
ISSUANCE	New ETH paid to operators who stake. Works like **new shares**.
LANES	The gas limit: how much work fits in each block, every 12 seconds.

~0.1 gwei
TYPICAL BASE FEE, 2026

~50%
AVERAGE BLOCK FILL VS LIMIT: AT TARGET

~44M
ETH STAKED, ~36% OF SUPPLY

60M
GAS LIMIT TODAY; 30M TARGET

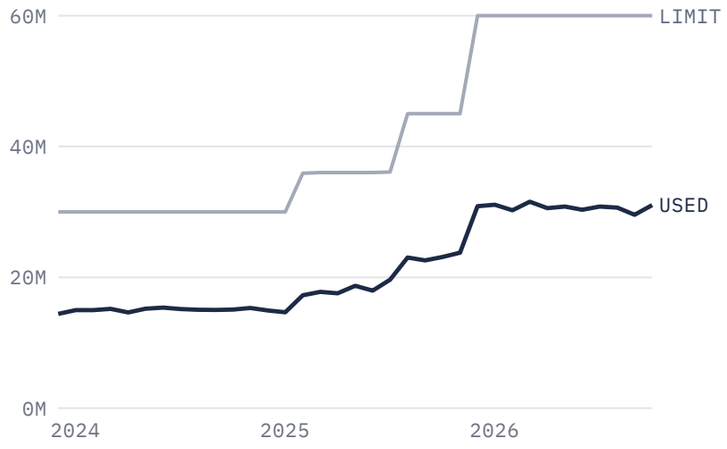
Base fee mechanism: EIP-1559 (±12.5% per block against a target of half the gas limit). Issuance: ultrasound.money 30-day gauge. Stake: beacon chain active balances, 1 Nov 2026. Block fill: block headers, 2026 average.

Traffic roughly doubled. The toll fell ~99%.

Gas used per block went from ~15M in 2024 to ~31M in 2026 as the limit rose from 30M to 60M, and transactions per block from ~165 to ~300. The typical base fee fell from ~10 gwei to ~0.1. At today's ETH price, a plain transfer that cost ~50¢ at 2024's typical fee now costs under a cent.

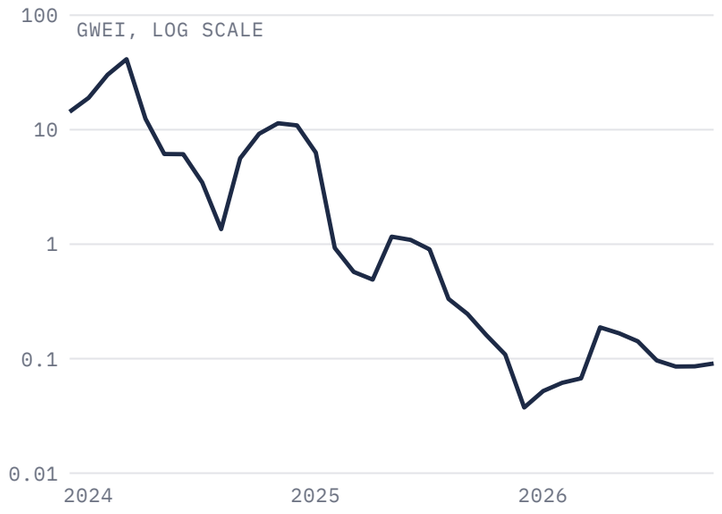
01 · LANES AND TRAFFIC

Gas per block, monthly, millions. Gray: limit. Navy: used. Blocks track the half-full target.



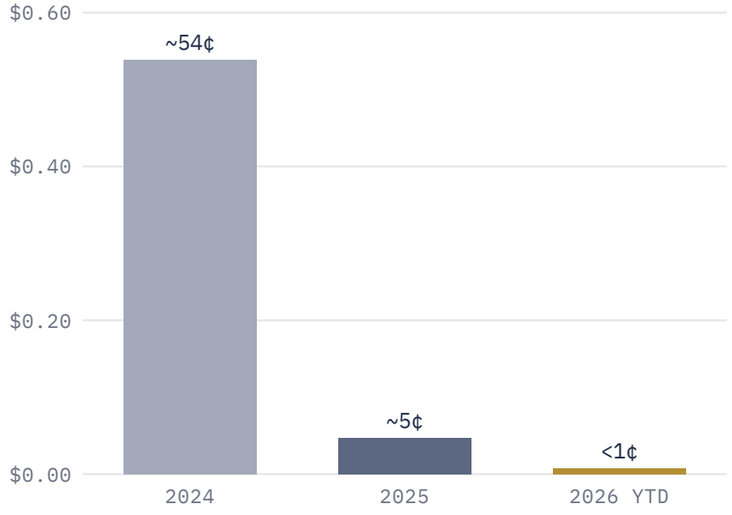
02 · THE TOLL

Typical (median) base fee, monthly. Two orders of magnitude in under three years.



03 · WHAT A PLAIN TRANSFER COSTS

21,000 gas at each year's typical base fee plus tip, all at today's ~$2,268 ETH.



~2x
GAS USED PER BLOCK, 2024 TO 2026

~1.8x
TRANSACTIONS PER BLOCK

~99%
FALL IN THE TYPICAL BASE FEE

~0.7¢
PLAIN TRANSFER, 2026 TYPICAL, TODAY'S PRICE

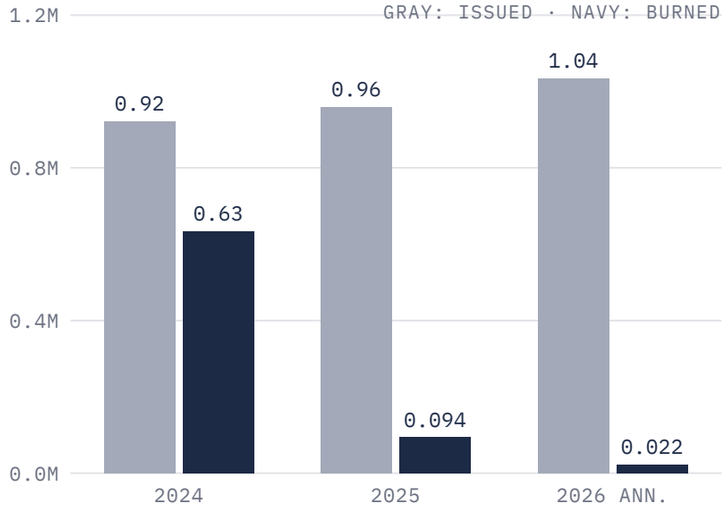
Block headers sampled every 300th block (~hourly), Jan 2024–Oct 2026; tips from full blocks every ~12 hours (median priority fee per transaction). Converting every year at today's price strips out ETH's own price move.

ETH issues ~1.09M a year and buys back ~22K. Supply grows ~0.9% a year.

Read the protocol like a share count: issuance is new shares paid to the operators, burn is a buyback. In 2024 the buyback covered about two-thirds of issuance. In 2026 it covers ~2%. For burn to offset issuance, the typical toll would need to reach ~14 gwei at today's limit, over 100x where it is, and more lanes lower that bar but lower the toll faster.

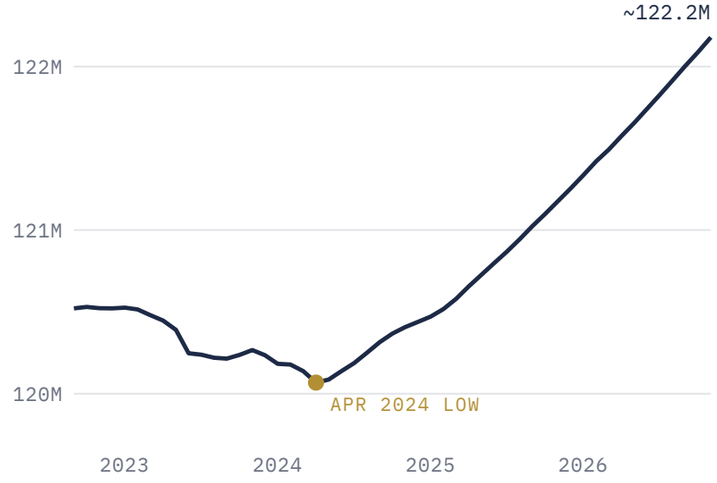
01 · NEW SHARES AND BUYBACKS

ETH a year, millions. 2026 annualized from ten months. Issuance rises with stake.



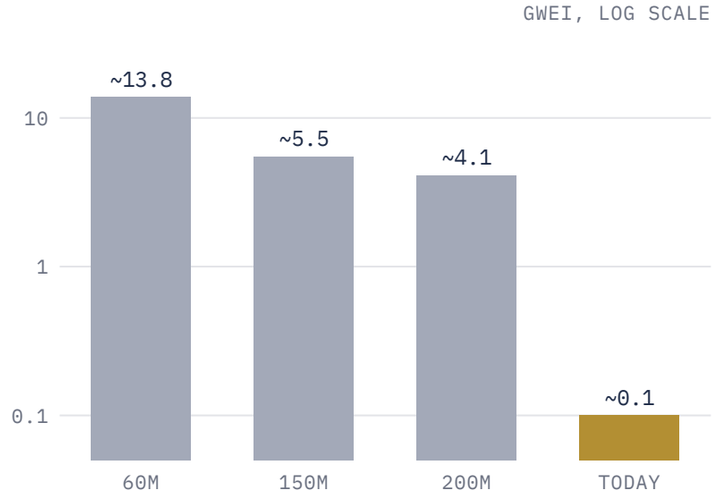
02 · SUPPLY SINCE THE MERGE

Millions of ETH, monthly. Falling into early 2024; rising since April 2024, the month after Dencun, as burn fell below issuance.



03 · THE BREAK-EVEN TOLL

Base fee at which burn equals issuance, by gas limit, against today's typical fee.



~0.9%
NET SUPPLY GROWTH A YEAR

~2%
SHARE OF ISSUANCE OFFSET BY BURN, 2026

~14 gwei
BREAK-EVEN BASE FEE AT 60M

~4–6 gwei
BREAK-EVEN AT 150–200M

Supply: ultrasound.money (since-Merge series; 30-day issuance gauge ~1.09M ETH/yr). Burn: block headers, 15 heaviest days re-sampled every 10th block; last 30 days ~2,990 ETH vs ~3,080 on ultrasound.money, ~60% of it from the 29–30 Oct spike. Issuance by year = supply change + burn. Break-even = issuance ÷ gas at target per year; ultrasound.money shows ~13.6 gwei.

NOT INVESTMENT ADVICE

Glamsterdam makes more lanes safe, makes some trips use more gas, and has no date.

Glamsterdam does not raise the gas limit by itself. It makes a higher limit safe and lets a limit schedule step up at set dates. The Hoodi testnet plan went straight to 200M at the fork; every mainnet increase so far has come in steps. Base case here is a staged path to ~150M, with 200M as the upper case. Repricing trims the effective gain ~10% (judgment).

01 · WHAT CHANGES

Scheduled changes in the Glamsterdam meta-EIP that matter for the toll.

CHANGE	IN PLAIN TERMS
Block-level access lists	Lets nodes process blocks in parallel, so more lanes are safe
Gas-limit schedule	Default limit can step up at set dates, not only by node updates
Builder separation (ePBS)	Block building moves into the protocol; changes who routes MEV, not how much
Gas repricing	State-heavy trips cost **more** gas; a plain transfer stays at 21,000

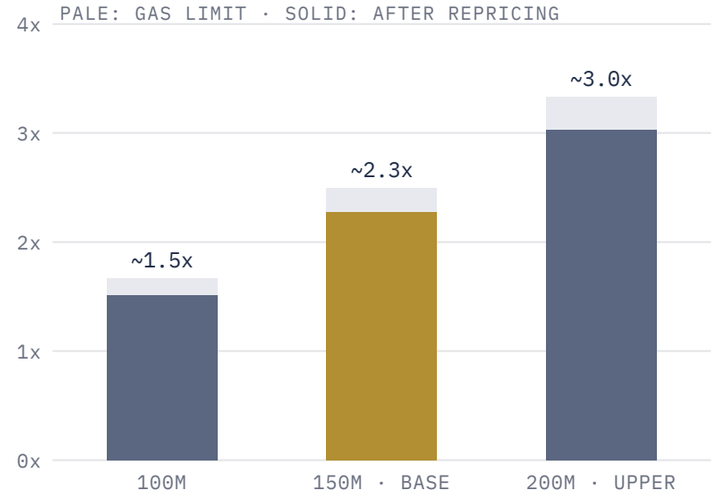
02 · TIMING

Ethereum Foundation and core-developer schedule.

DATE	EVENT	STATUS
6 OCT 2026	Live on Sepolia testnet	Done
22 OCT 2026	Hoodi testnet postponed to review EIP-8037; 200M schedule removed	No new date
MAINNET	No activation date set	—

03 · CAPACITY CASES

Multiple of today's 60M, before and after ~10% repricing drag.



60M
GAS LIMIT TODAY

~150M
BASE CASE, STAGED

200M
UPPER CASE, HOODI SCHEDULE

None
MAINNET ACTIVATION DATE

EIP-7773 (Glamsterdam meta-EIP): EIP-7928, EIP-8261 (gas-limit schedule, informational), EIP-7732, EIP-2780, EIP-8037, EIP-8038, EIP-7976, EIP-7981. Ethereum Foundation blog, "Glamsterdam on Hoodi Postponed", 22 Oct 2026. EIP-7904 is an informational gas analysis, not a fee cut. The ~10% drag is judgment, not measured.

NOT INVESTMENT ADVICE

Lanes were added three times before. Each time the toll fell far more than traffic rose.

Each gas-limit step lifted gas used ~20–35% within a month, while the typical total price (base fee plus tip) fell ~60–80%. Burn fell to ~0.1–0.5x. Typical 30-day moves away from the steps are near zero; all three step moves fall beyond the 10th percentile of those. Demand for blockspace has been inelastic on the way down.

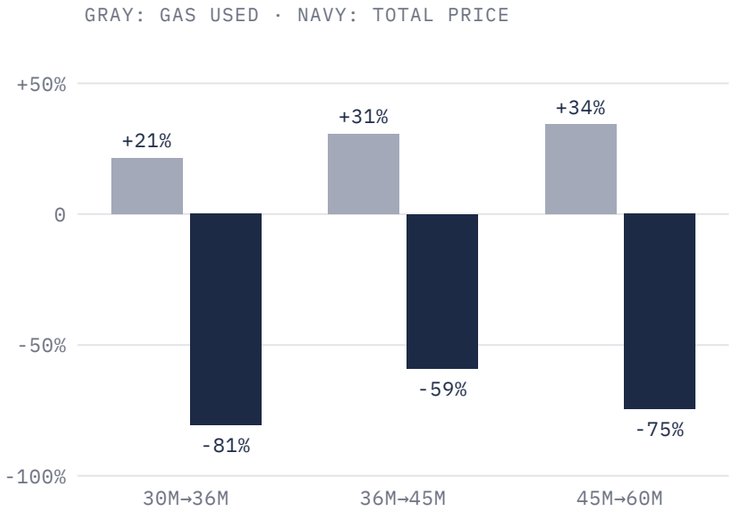
01 · THE TOLL AROUND EACH STEP

Gold lines: the 36M, 45M and 60M steps.



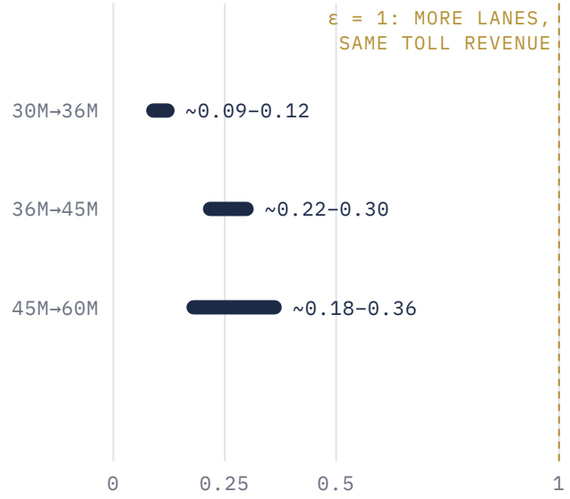
02 · TRAFFIC UP, PRICE DOWN

30 days after vs 30 days before each step.



03 · IMPLIED ELASTICITY

Range across 14, 30 and 60-day windows. Below 1, more lanes mean less toll revenue.



~1.2–1.35x
GAS USED AFTER EACH STEP

~0.1–0.5x
BURN AFTER EACH STEP

~0.1–0.35
IMPLIED ELASTICITY, EVERY WINDOW

n = 3
STEPS: READ DIRECTION, NOT SIZE

Elasticity = −ln(gas after ÷ before) ÷ ln(price after ÷ before), price = median base fee + median tip. Confounders: market moves, migration to L2s, spam filling new space (transactions rose less than gas). Placebo: 767 random 30-day windows away from the steps, median log change ~−0.1.

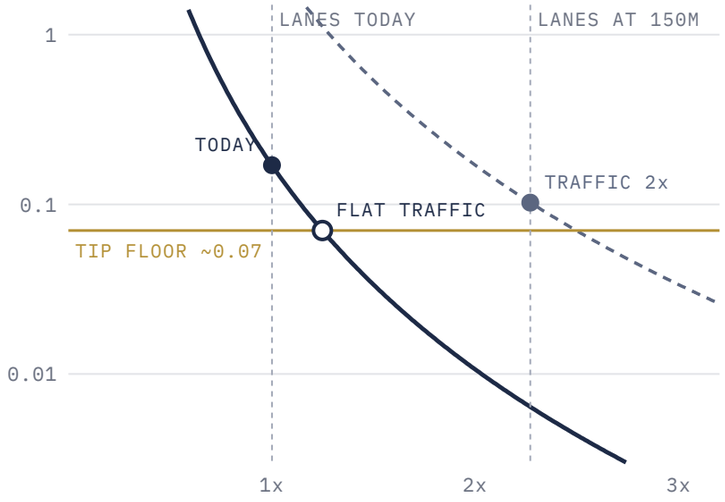
NOT INVESTMENT ADVICE

With a working toll, price clears the road. On an empty road, only tips are paid.

The model has two regimes. While demand fills the block target, the base fee clears the market. If demand at the tip floor falls short of the target, the base fee goes to ~zero, users pay tips only, and burn stops. Glamsterdam's step size decides which regime the road lands in unless traffic grows first.

01 · DEMAND AGAINST CAPACITY

Total price (gwei, log) against gas per block (x today). Navy: today's demand; dashed: doubled. Hollow dot: at the tip floor, flat traffic fills only ~1.25x, short of 150M's ~2.3x.



02 · THE TWO REGIMES

What sets the toll in each.

Regime 1 · a working toll. Demand fills the half-full target and the base fee settles wherever that is true. More traffic raises the toll; more lanes lower it.

Regime 2 · an empty road. If everyone willing to pay the tip still leaves blocks below target, the base fee falls toward zero. Users pay only the tip, which goes to operators. Nothing is burned.

After a ~2.3x step with flat traffic, the toll needed to clear the road would sit below the tip itself, so the road goes to regime 2.

03 · WHAT MOVES THE ROAD BETWEEN THEM

One ratio and one parameter.

The boundary depends on one ratio: **traffic growth ÷ added lanes**, against how much traffic responds to price.

At the measured elasticity, the toll stays alive at 150M only if traffic grows ~1.7–2.0x first. At 100M the bar is ~1.1–1.3x.

The tip is set by wallets and by bids for ordering, so it does not fall with capacity. That is what makes it a floor.

~0.17 gwei
TYPICAL TOTAL PRICE: BASE FEE + TIP

~0.07 gwei
TYPICAL TIP, THE FLOOR

~1.7–2.0x
TRAFFIC TO KEEP THE TOLL ALIVE AT 150M

~1.1–1.3x
SAME AT 100M

Demand: constant elasticity in total price (ε 0.25 shown). Typical base fee and tip are 2026 medians. Burn is scaled from the typical fee to the annual total (~2.8x, stress-day spikes). Workbook: ETH_Glamsterdam_Fee_Model_v1, Model and Scenarios sheets.

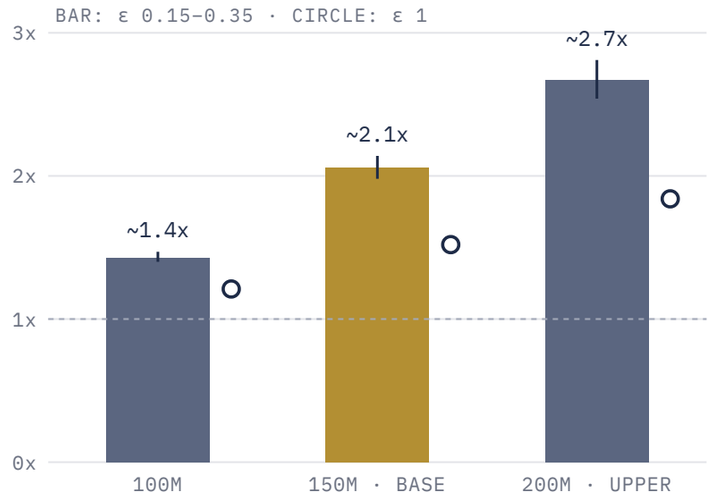
NOT INVESTMENT ADVICE

At measured elasticity, flat traffic takes the toll to ~zero at every stage of the step-up.

Traffic growth, at today's prices, needed to hold burn at today's level: ~1.4x at 100M, ~2.1x at 150M, ~2.5–2.8x at 200M at the measured elasticity. If demand is far more elastic (ε ~1), less is needed, and a 100M step at flat traffic keeps ~0.6x of burn. Below those levels, burn falls toward zero. Above them it can rise quickly, but that is where the model is weakest.

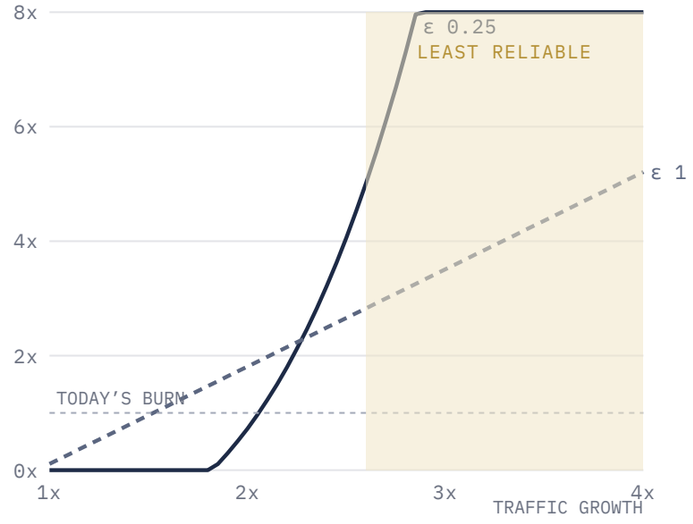
01 · TRAFFIC NEEDED TO HOLD BURN

By stage, x today's traffic (dashed line = today). Whisker: ε 0.15–0.35, measured. Circle: ε 1, judgment.



02 · BURN AGAINST TRAFFIC, 150M

Multiple of today's burn, capped at 8x. Shaded: where inelastic demand on the way up is not credible.



03 · READING IT

The asymmetry, and the base rate the bull case has to beat.

Demand is inelastic on the way down and probably elastic on the way up. All the evidence comes from lanes being added. When traffic surges, users can move to L2s, which caps the toll.

So the model is most reliable for the bad case, where flat traffic sends the toll to ~zero, and least reliable for the good one, where low elasticity makes burn soar.

The base rate: adjusted for the ~98% fall in price, demand at a constant price was roughly flat to down ~75% from 2024 to 2026. No recent two-year window shows 2–3x.

~0	~1.4x	~2.1x	~2.5–2.8x
BURN AT FLAT TRAFFIC, MEASURED ELASTICITY	TRAFFIC TO HOLD BURN, 100M	SAME, 150M BASE CASE	SAME, 200M UPPER CASE

Scenarios are re-pricings of demand, not forecasts. Traffic growth is a shift in the demand curve at constant price. Issuance held at today's rate. Spikes scaled in proportion to typical burn; after a large step they probably shrink more. Workbook: Scenarios sheet.

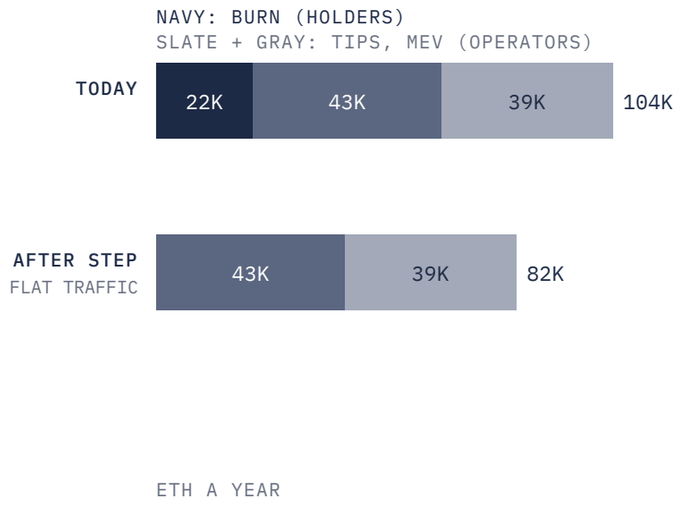
NOT INVESTMENT ADVICE

Holders get about a fifth of what users pay. After a step at flat traffic, close to none.

Users pay ~105K ETH a year in all: ~22K burned, ~43K in tips, and an estimated ~39K in MEV outside the protocol. Burn is also concentrated: about half of 2026's came from the busiest ~10% of days, and ~60% of the last 30 days' from one stress event on 29–30 October, when Binance reported a ~$6.3bn hot-wallet theft.

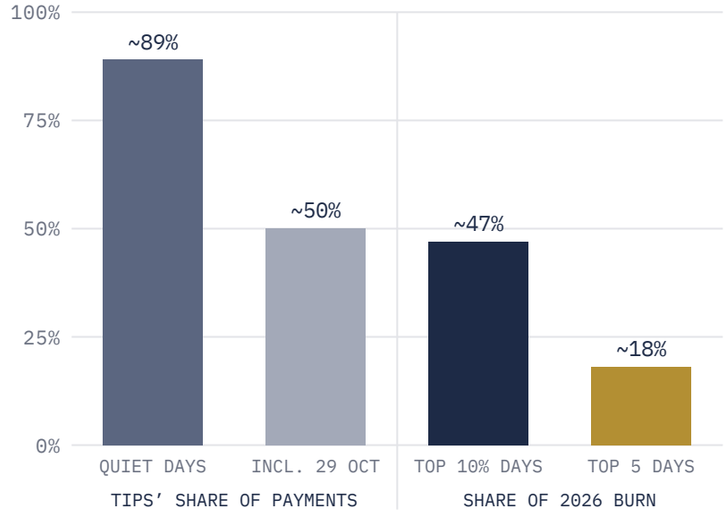
01 · WHO GETS THE TOLL

ETH a year by recipient, today and after a step with flat traffic.



02 · BURN IS A STRESS-DAY EVENT

Left: tips' share of what users paid, two recent windows. Right: share of 2026 burn from the busiest days.



03 · READING IT

From the toll to the bond.

Today holders get roughly a fifth of what users pay, through burn. Operators get the rest as tips and MEV.

After a step with flat traffic, at measured elasticity, burn goes to ~zero and operators get all of it. Value moves from **every holder** to **the bond**: the ETH staked to run the road.

Builder separation (ePBS) changes who routes MEV, not how much there is. Tips and MEV depend on trading and volatility, not on lane count.

~22K
ETH BURNED A YEAR, TYPICAL

~43K
PRIORITY TIPS A YEAR

~39K
MEV OUTSIDE THE PROTOCOL, EST.

~1/5 → ~0
HOLDERS' SHARE OF USER PAYMENTS

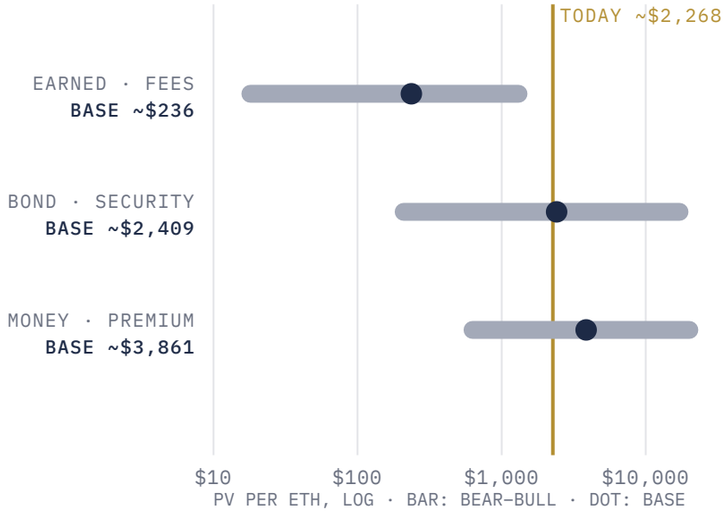
Tips: gas-weighted priority fees from transaction receipts (quiet window ~31 Oct–1 Nov; ~89% of user payments) and Token Terminal fees less burn (Sep 2026). MEV: estimate from validator execution-layer reward share (P2P.org), rough. Binance, "Security Incident | Recovery Update #2", 30 Oct 2026: hot wallets compromised ~20:05 UTC 29 Oct; the base-fee spike follows ~an hour later.

By design, fees won’t carry the price. It has to rest on the bond and the money.

At ~$2,268, fees would have to reach ~$49bn a year by 2035, ~200–300x today, to justify the price, and the lane policy points the other way: a step with flat traffic shrinks the fee base by roughly a fifth. The fee lens explains ~10% of the price. The rest depends on ETH’s role as a security bond for the value it settles, and as collateral and a reserve asset: lenses no toll road describes.

01 · THREE LENSES, PRESENT VALUE PER ETH

Network Value Lenses, re-run on 1 Nov 2026 inputs. Alternatives, not additive.



02 · WHAT TODAY’S PRICE REQUIRES

Reverse solve, base case, 10% discount rate, 3% terminal growth.

FOR TODAY’S PRICE, BY 2035	REQUIRED
ETH market value	~$706bn
Earned: L1 fees a year	~$49bn, ~200–300x today
Bond: value secured on Ethereum	~$1.9tn, ~10x today, ~29% a year
Money: share of gold + BTC premium	~1.8%, from ~1% today

03 · OUR EARLIER MODEL, MARKED TO MARKET

Same workbook, current inputs, one correction.

V2.3 SUM-OF-THE-PARTS	VALUE PER ETH
As published	~$1,850
On current supply, stake, price	~$2,030
With the Settlement fee baseline corrected	**~$1,620**

Our v2.3 Settlement baseline overstated L1 fees ~13x (~$3.5bn vs ~$0.25bn a year); corrected, v2.3 reads ~$1,620. Agentic and Collateral are now ~70% of its value.

~$49bn
L1 FEES A YEAR NEEDED BY 2035

~10%
SHARE OF THE PRICE THE FEE LENS EXPLAINS

~$2,409
BOND LENS, BASE PV PER ETH (BEAR–BULL ~$209–17,179)

~$3,861
MONEY LENS, BASE PV PER ETH (BEAR–BULL ~$629–20,075)

Network Value Lenses v1.2 (inputs updated: price, supply, stake, burn, BTC, valuation date; gold price and Token Terminal fees not refreshed). v2.4 MTM: supply, stake, price, Settlement baseline changed; Segment 2, restaking, stablecoin baselines and growth rates not refreshed. Workbooks delivered alongside.

NOT INVESTMENT ADVICE

What would change the read: watch the toll after each step, not the upgrade date.

The thesis holds if the base fee stays near zero after each gas-limit step and holders' share of user payments falls. It fails if traffic outruns the lanes, so the toll recovers within a couple of months of each step. The right-hand columns are judgment, not model output.

01 · LEADING INDICATORS

Each step is a checkpoint.

INDICATOR	NOW	WOULD SUPPORT THE BULL CASE	WOULD MARK THE BEAR CASE
Typical base fee ~2 months after each step	~0.1 gwei; fell to ~0.1–0.5x after past steps	Recovers toward its pre-step level	Stays near zero; tips dominate
Burn ÷ issuance	~2%	Rising after a step	Near zero after a step
Traffic at constant price	Flat to down ~75% since 2024	Grows faster than lanes are added	Grows slower than lanes
Holders' share of user payments	~⅕	Holds or rises	Falls toward zero
Lane policy	Three steps, each on a falling toll (~6 → ~1 → ~0.15 gwei); mainnet schedule unpublished	Lanes held while the toll rises	Lanes widen ahead of traffic, e.g. one step to ~200M
New high-throughput demand on L1	No measurable agent volume in fee data	L1 base fee rising between steps, not only on stress days	Growth shows up only on L2s or other chains
Glamsterdam timing	No mainnet date; Hoodi postponed	A delay postpones the step	Changes timing, not the read

02 · AGAINST

The strongest form of the other side.

Low tolls can be a strategy, not a failure. Keeping fees near zero trades margin for growth: winning traffic back from L2s and other chains. If traffic grows faster than lanes, the toll revives, and with inelastic demand it revives fast.

Developers say as much. Vitalik Buterin's September 2026 essay puts cheaper, scalable computation at the center, and the Bull Case authors call the fee decline deliberate self-disruption. The bull case does not need fees to carry the price; it needs usage to become demand to own ETH.

Bull scenario: cheap lanes unlock new demand. Agents and high-throughput apps could outrun even the added capacity. At measured elasticity, ~3–5x traffic at 150M brings burn back to 2024 levels; if users can switch to L2s, it takes ~17x or more. It holds only if the demand settles on L1, outruns the lane policy, and stays inelastic as it grows.

~1.7–2.0x
TRAFFIC TO KEEP THE TOLL ALIVE AT 150M

~⅕
HOLDERS' SHARE OF USER PAYMENTS TODAY

~5%
SUPPLY HELD BY ONE TREASURY COMPANY (BITMINE)

~$12bn
US SPOT ETH ETF NET INFLOWS TO DATE

BitMine release, 26 Oct 2026 (PR Newswire): ~6.05M ETH as of 25 Oct (~4.95% of supply), ~5.2M staked. ETF flows: Farside Investors (compiled from issuer data), through 30 Oct 2026; net outflows of ~$650M over the last two weeks. Indicator thresholds are the author's judgment.

How it was measured, and what to distrust.

01 · METHOD

Data. Block headers every 300th block (~hourly) and full blocks every ~12 hours, Jan 2024–Nov 2026, and recent transaction receipts, from an Ethereum node. Validator set from the beacon chain. Supply, 30-day burn and issuance from ultrasound.money.

Elasticity. Windows of 14, 30 and 60 days before and after each gas-limit step; $\varepsilon = -\Delta\ln(\text{gas}) \div \Delta\ln(\text{base fee} + \text{tip})$. Placebo on 767 random windows.

Two regimes. Constant-elasticity demand in total price. Regime 1 clears at target; regime 2 (price at the tip floor) leaves blocks below target with base fee ~0. Burn scaled from the typical fee (~2.8x for spikes).

Lenses. Network Value Lenses v1.2 and v2.4: original workbooks re-run with listed inputs changed.

02 · WHAT TO DISTRUST

Three steps. Small sample, bundled with market moves, L2 migration and spam. Direction, not size.

Upside. Elasticity is measured as lanes were added. Demand is probably more elastic as traffic rises, so high-growth outcomes are overstated.

Spikes. Burn is concentrated on stress days and hourly sampling can miss or overweight them; cross-checked to ultrasound.money.

Tips and MEV. Priority fees measured over short windows; MEV is an estimate. Capacity cases and the ~10% repricing drag are judgment; no mainnet schedule exists.

03 · SOURCES AND LEFT OUT

EIP-7773 and linked EIPs (ethereum/EIPs). Ethereum Foundation blog, 22 Oct 2026. Vitalik Buterin, “World Computer”, Sep 2026. Etherealize, “The Bull Case for ETH”, Jun 2025. Binance, Recovery Update #2, 30 Oct 2026. BitMine release, 26 Oct 2026. Farside Investors ETH ETF flows. Coinbase spot prices, 1 Nov 2026. ultrasound.money. Token Terminal and P2P.org via Network Value Lenses.

Left out deliberately. A price target; a mainnet date; blob fees (now ~a few ETH a year); any forecast of traffic. The work shows what the price requires and what would change the read.

Workbooks: ETH_Glamsterdam_Fee_Model_v1, ETH_Network_Value_Lenses_v1_2_MTM, ETH_Valuation_Analysis_v2_4_MTM.

Everything is approximate and rounded; ranges are the information. Prices as of 1 Nov 2026. The author holds no position in ETH. Not investment advice.