

Repricing session Focused on repricings, not on EVM improvements

Glamsterdam
EIP-8007: Glamsterdam Gas Repricings meta EIP containing all repricings for
Glamsterdam, numbers are subject to significant change

Compute Repricings

We need to target the worst case on L1, not so important on L2

Targeting 60MGas/s

We have ~3s for execution in the worst case on L1

Repricing candidates:

Mulmod, Smod, mod: 3x

Modexp: 3x ? Maybe unnecessary after Fusaka

Point evaluation (kzg): 3x

Keccak: 2x

G1Add: 1.5x, Blake 1.5x, ecAdd 1.5x, g2Add 1.5x, Ecrecover, EcPairing

Targeting ~3 threads with BALs

8037

Separates state growth and state access

multi-dimensional metering

16MGas tx limit for burst resources

cost per state byte dependent on gas limit

7778

Remove refunds from gas calculation, otherwise worst case block can use ~20% more gas than gaslimit

Calldata & AL

Need to reprice calldata

Also need eth/70 to go beyond 75MGas/block, otherwise receipts can exceed the 10MB network limit

Benchmarks

Comprehensive Benchmarking suite from EF: <https://github.com/ethereum/execution-specs/tree/forks/amsterdam/tests/benchmark> (<https://github.com/ethereum/execution-specs/tree/forks/amsterdam/tests/benchmark>)

Benchmark tool for executing tests, being released in the next few weeks

H-Star

Work on block chunking to pass the 10MB limit for execution payload

Repricings for more operations, making things cheaper