Revenue Calculation

Formula For Calculating AEP_FEE - Document

```
AEP_FEES = [(gross revenue) - (settlement costs)]*0.1
AEP_FEES = [(sequencing revenue + additional revenue) - (settlement costs)]*0.1
AEP_FEES = [(l2BaseFee + l2SurplusFee + l1SurplusFee) - settlement costs]*0.1
```

1. L2 Base Fee

Introduction -

l2BaseFee is the minimum gas price you must pay to send a transaction on an Arbitrum chain.
It is like a starting fee or base cost that every transaction must pay, just to be included in a block on the Arbitrum chain.

Formula -

[L2 Base Fee = gas_used × base_fee_per_gas]
gas_used - arbitrum.transactions
base_fee_per_gas - arbitrum.blocks

2. L2 Surplus Fee

Introduction -

The L2 Surplus Fee represents the additional fee paid above the base fee on Layer 2, consisting of priority fees that users pay to incentivize faster transaction processing. This is the "tip" component of the transaction fee.

Formula -

[L2 Surplus Fee = (gas_price - base_fee_per_gas) * gas_used]
gas_price, gas_used - arbitrum.transactions
base_fee_per_gas - arbitrum.blocks

3. L1 Surplus Fee

Introduction -

The L1 Surplus Fee is the additional cost above the minimum required L1 posting fee. When Arbitrum batches transactions to post on Ethereum mainnet, any excess payment above the actual L1 gas cost becomes a surplus fee, often due to gas price volatility or conservative fee estimation.

4. L1 Base Fee

Introduction -

Settlement Costs represent the fees paid to Ethereum mainnet for posting transaction data and state updates. These are the actual costs Arbitrum incurs to settle batches of L2 transactions on L1, ensuring security and finality.

5. Settlement Cost

Introduction -

Settlement Costs represent the fees paid to Ethereum mainnet for posting transaction data. This uses the L1 gas component of each transaction.