

# Constellation:

## Maximize Earnings & Preserve Decentralization

*The benefits of Constellation for new and existing operators on Rocket Pool*

### Maximize Your ETH Cash Flow

Constellation focuses on delivering sustainable ETH-denominated revenues to new and existing node operators with proven reliability. As discussed during [Denver Lift-Off](#), Constellation dramatically boosts earnings for operators with fewer validators. As of 3/20/214, the distribution of operators on RP heavily weights towards this low-validator node operator cohort:

Minipool Count	Operators	Percentage
100+	60	1.67%
50-99	64	1.78%
20-49	172	4.78%
10-19	275	7.64%
1-9	2,916	81.02%

A staggering 2,916 operators (81%) currently run less than ten minipools.<sup>1</sup> This statistic illustrates that many individuals are working together to help decentralize the Ethereum blockchain. At NodeSet, we believe that these individual operators, not large and centralized institutions, should be scaling Rocket Pool and securing Ethereum. They just need the support and assets to do it!

For nearly 90% of Rocket Pool node operators, joining NodeSet is the easiest way to maximize their ETH earnings and contribute to growing the Rocket Pool protocol. It's a financial no-brainer that benefits everyone. On launch, Constellation will deploy LEB8s, boosting operators' ETH revenues substantially:

Earnings Boost Summary: LEB8				
Number of Validators	1	3	5	10
NodeSet Allocation	30	30	30	30
<b>ETH Earnings Boost</b>	<b>518%</b>	<b>173%</b>	<b>104%</b>	<b>52%</b>

Table 1: [NodeSet Earnings Boost](#)

---

<sup>1</sup> <https://rocketscan.io/nodes>

Assuming NodeSet scales to 30 validators per operator, small-scale operators can expand their ETH-denominated yield by 50-520% while supporting the growth of rETH. Node operators with only a single validator benefit exceptionally. This increase in earnings creates a compelling value proposition to entice operators to join Rocket Pool over competing platforms.

First, note that all earnings comparisons assume 10% RPL collateralization for operators' minipools. Lowering RPL collateralization requirements to attract new operators would compress the commission/RPL multiple (making it cheaper to join as a node operator) and increase the earnings boost.

Furthermore, transitioning to LEB4s increases profits dramatically due to the 7x rETH leverage per validator. Upon implementing megapools and eliminating minipool contracts, the cost to deploy and operate LEB4s drops significantly, lowering the costs for small-scale operators and enabling greater participation in RP and Constellation.

**Earnings Boost Summary: LEB4**

Number of Validators	1	3	5	10
NodeSet Allocation	60	60	60	60
<b>ETH Earnings Boost</b>	<b>1485%</b>	<b>495%</b>	<b>297%</b>	<b>148%</b>

[\*Table 2: NodeSet Earnings Boost\*](#)

## Earnings Comparison

See below the ETH-denominated yield comparison between four different validator types: solo-staking, an LEB under current tokenomics, and LEB4/LEB1.5 under new tokenomics. Additionally, included are operator earnings if they were to run five LEB4s in addition to NodeSet validator allocations ranging from twenty to sixty validators, all under existing tokenomics (i.e., for each of the five LEB4s, the operator is staking 4 ETH and 2.8 ETH of RPL).

## ETH Yield on Operator Stake

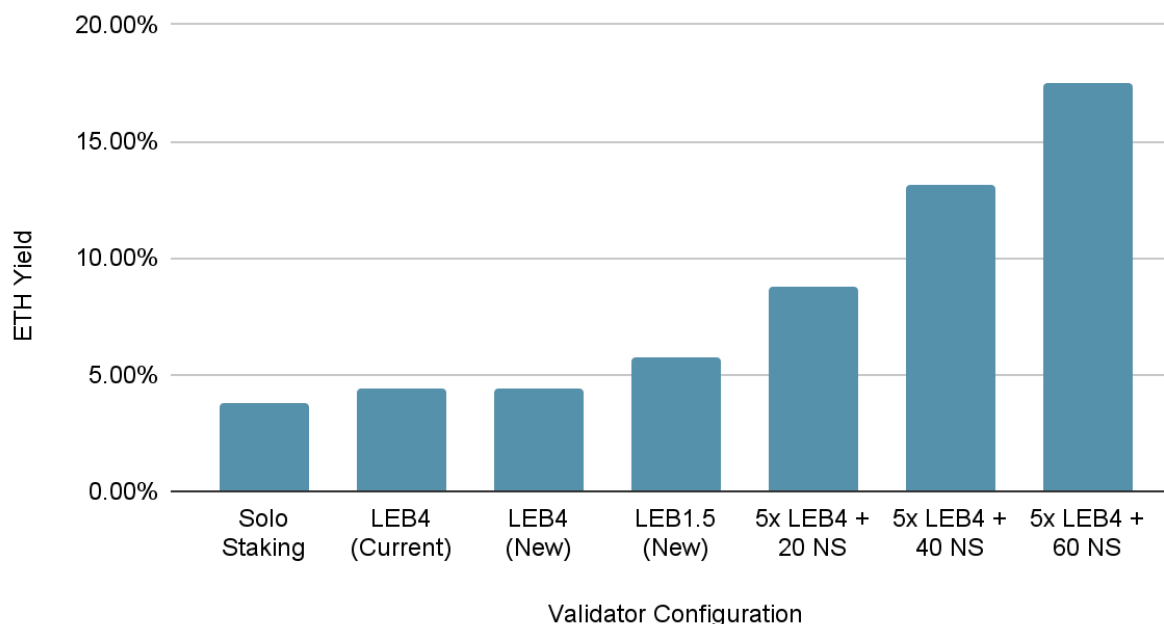


Chart 1: [Validator Comparison](#) + [NodeSet Earnings Boost](#)

If an operator runs fewer than five validators, NodeSet allocation would result in substantially higher yields (e.g. an operator running three LEB4s would yield 11.67% - 26.19%). From the perspective of an operator, there simply is no comparison. A world where NodeSet has sufficient demand to distribute validators equals a massive boost in ETH-denominated cash flow. If it was deemed safe to migrate to LEB2s or lower, NodeSet-boosted operators would benefit further.

New tokenomics cannot compete vs. existing tokenmics and NodeSet, as 75% of the total protocol's value is directed to RPL burn/claim. Lido CSM isn't remotely competitive either!

## RPL Payoff Period

As mentioned in our recent tokenomics report, the commission/RPL multiple represents the time to "pay off" the initial RPL investment (i.e., how many years will it take to pay for the RPL purchased to unlock the commission). This metric is purposefully punitive, assuming the unlikely event that the operator recoups **none** of their initial investment. Still, it's helpful to think about financial exposure to RPL in this way because it gives us an easy way to see how Constellation massively reduces operators' RPL exposure risk.

Using Constellation, operators' payback period is dramatically reduced, making RP more attractive to stakers with a shorter time preference (e.g., a desire to stake for only three years). Below, you will see the rate at which an operator pays back their initial RPL investment when admitted to Constellation.

## Operator RPL Payback Period (Commission/RPL Multiple)

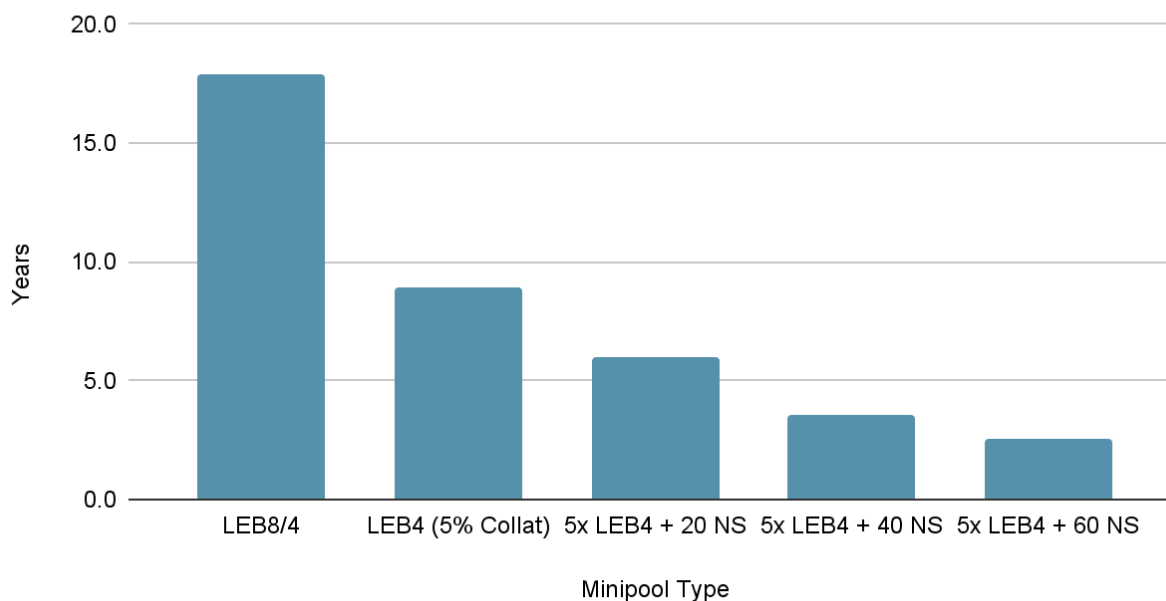


Table 2: [Commission Multiple with Constellation](#)

Under current tokenomics, an operator running LEB8s/4s takes approximately 18 years to fully pay off their RPL investment using ETH rewards alone. With Constellation, the payback period drops 66% to 85% depending on total validator allocation. Suddenly, the prospect of holding RPL is less risky, and Rocket Pool is more attractive to new operators who were previously sidelined.

## Ecosystem Benefits

### Scale RP Using the Long Tail

Additionally, Constellation enables RP to scale on the backs of small-scale operators who contribute the most to the protocol's decentralization and security value. RP's operator community is one of the most technical and value-aligned communities in the crypto ecosystem; it only makes sense to build solutions that explicitly reward the community.

## RP + Constellation Outcompetes Lido CSM

Node operators care about ETH-denominated cash flow, and the combination of RP and Constellation maximizes operator earnings relative to other platforms. There is no better way to generate ETH yield than participating as a NodeSet operator on Rocket Pool!

## Improve RPL Liquidity Conditions

NodeSet plans on reinvesting 100% of xRPL revenues (which derive from RPL emissions) into incentivizing liquidity throughout the RP ecosystem. We are excited to work with the IMC and community to prioritize venues that add the greatest value to the ecosystem.

## Conclusion

Constellation presents a transformative opportunity for Rocket Pool's node operators, promising a substantial increase in ETH-denominated earnings while reinforcing the protocol's commitment to decentralization. By focusing on supporting small-scale operators who constitute the majority within the Rocket Pool ecosystem, Constellation not only democratizes the opportunity for greater yield but also strengthens the security properties of Rocket Pool by enforcing egalitarian validator distribution.

The deployment of Constellation dramatically reduces the RPL payback period, making participation in Rocket Pool significantly less risky and more attractive for operators. Furthermore, the comparison of ETH yields under different scenarios illustrates the scale of benefits to operators today. Constellation will enable RP to outcompete alternatives like Lido CSM, offering a compelling value proposition for operators seeking to maximize their earnings and contribute to the security and decentralization of Rocket Pool and Ethereum.