

Additional insights from web3 reward emission research

We are currently undertaking a large-scale research effort to create better frameworks for token mechanics especially for web3 protocols in the hardware resource provisioning sector.

We have recently published part one, where we have compared emission schedules of various web3 networks, including of course Livepeer. You can find the report [here](#).

We wanted to share some additional data with the Livepeer community though, that is not in the report.

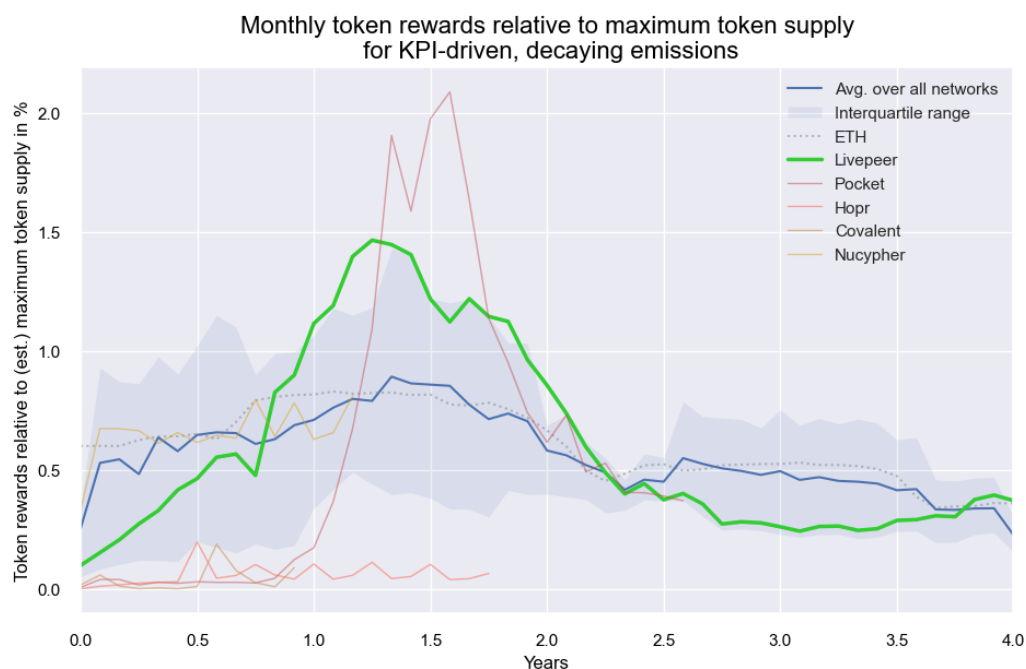
First off, we have classified Livepeer token rewards to be in the category of KPI-driven and constant emissions. That is because Livepeer has a constant rate at which staking rewards are emitted each round. That rate however is depending on Livepeer's stake/participation rate (its KPI): it's increased when less than 50% of LPT supply is staked and conversely decreased if that stake/participation rate is above 50%.

Within that category there are currently also the following projects we analyzed:

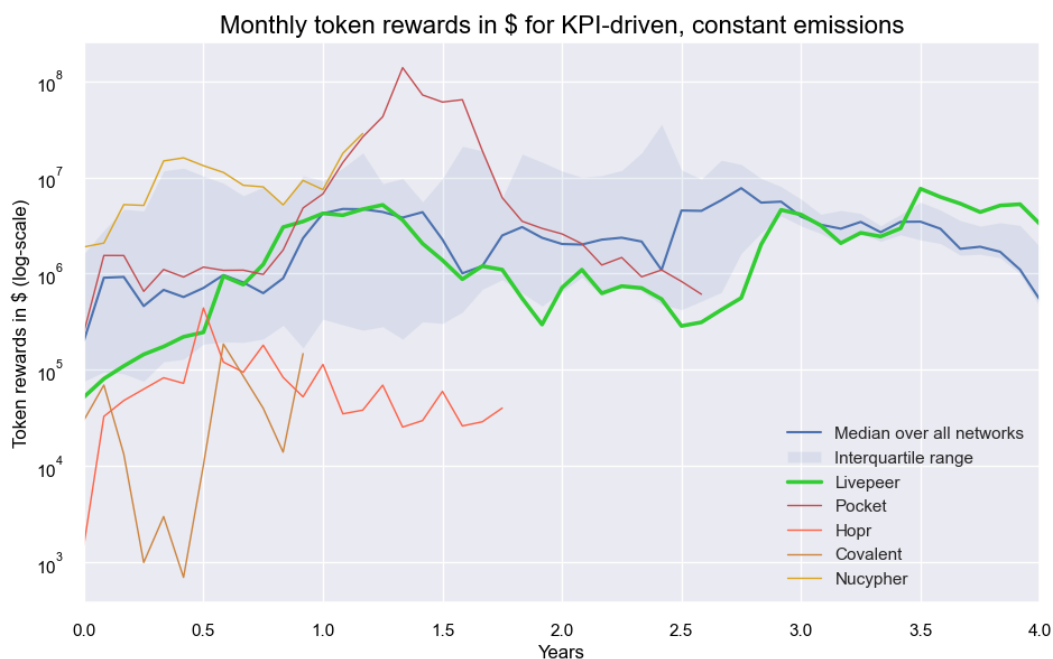
- Pocket
- Hopr
- Nocypher
- Covalent

In comparison to the other projects in this category, Livepeer's relative token reward emissions are in the middle range: relative to an estimated maximum supply (see further below on details on what this is, given Livepeer's supply is unlimited), Livepeer emitted ~30% in the first four years, which is slightly below the average over all the Web3 infrastructure networks we analyzed (and exactly where Ethereum landed after four years). The trajectory of monthly rewards shown in the chart below is quite typical for a KPI-driven setup: when the KPI is stable such in years 2.5-4, so are the emissions. In the first two years the stake rate was quite below and then quite above 50% causing the 'bump' in the monthly rewards.

Below chart shows the average (blue line) and the interquartile range (blue shaded) of the monthly token rewards of all Web3 infrastructure networks together with the projects of the KPI-driven and decaying emissions category highlighted:



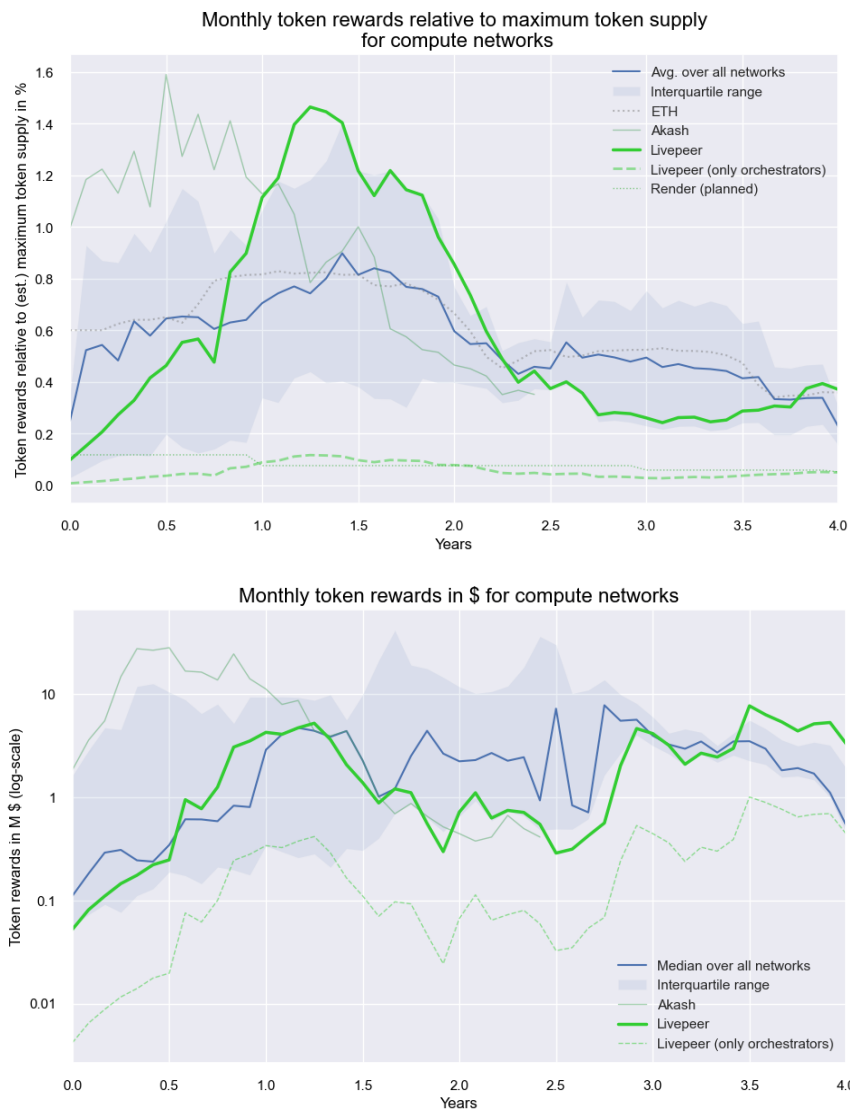
Next we looked into the dollar value of those emissions, to compare how stakers are actually getting compensated:



Towards the end of the 2nd year for Livepeer in the above chart is when the 2021 bull market started, which is why we see an increase in dollar-valued token emissions afterwards despite

lower token emissions (in the previous chart). This impact of pricing tailwinds is also visible in Pocket's and Nucypher's reward emissions when converted into dollars.

However, for Livepeer it might be more important to compare it to the networks providing similar services versus comparing it to projects with similar token emissions. So here we go:



The values for Render are the planned emissions based on [RNP001](#), hence not started yet. Interesting to see that they are on the same level as the rewards orchestrators got as reward share.

More information and data are available in [this repo](#) that also contains the paper with further details on the published report. We hope this information yields some insightful information for the Livepeer community and are open to your feedback. What would be some additional data you would want to see / topics to dive into?

