I filed a comment on RIN 3038-AF76 answering questions 30, 31, 35, 42 and 69. This note adds a little more than the comment does.

A word on who I am first. I measure how much work artificial intelligence chips actually deliver for the people who buy them in bulk, and I write the software that runs on those chips. My work is published, and everything below comes from my own runs. My profile is https://www.linkedin.com/in/laela-zorana-362309114/ The measured runs behind this note sit at https://huggingface.co/datasets/LaelaZorana/kernel-grader-mi300x-rocm-trainium-nki and the kernels are at https://huggingface.co/LaelaZorana/spmv-csr-triton-gpu-kernels

The first finding is about where the control sits. NYMEX submission 26-370 lists two compute futures that settle on a daily index published by Silicon Data. The index takes rental records from the cloud providers selling the capacity, and adjusts each record to one standard deal. That adjustment is owned by the firm and reset every week. So the settlement number is made inside the index administrator. An affiliation test written around voting securities passes straight over that seat, because a minority stake or a data agreement is enough to reach it.

The second finding explains why the seat is so strong. In one test I ran, the same chip in the same session completed the same job 851 times faster once the software around it changed. Nothing about the hardware moved.

There is a second measured finding behind the comment. On an AWS Trainium core, the chip vendor's own software model of that chip and the physical card gave different numbers on about 78 percent of the results, on every seed. So a number produced by modelling is a different thing from a number produced by running the work, and a rule that accepts either will not compare like with like.

I have built and tested a way to describe a unit of computing capacity so that two contracts mean the same thing, and a way to judge whether a delivered result falls within acceptable limits. Both are my own work, and I have filed a provisional patent on it, number 64/160,345. That is why the detail stays out of a public filing. I am glad to go further with the Commission.

If the Commission is weighing a specific index or affiliation design, there are two ways I can be useful. I can run the measurement on the hardware named in it and send you the result. Or, where your staff would rather keep the work in house, I can provide the specification and the tooling so your own engineers run it themselves. My work sits at https://computelab.co/.

Thanks,

Laela Zorana, High-Performance Computing Engineer

ComputeLab.co