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**Semiconductors | North America**

# The Open Compute Project Conference Should Clarify the 800 Volt Debate

800VDC expectations got ahead of the likely pace of the transition, but we think the broad "delay" narrative overstates what's changed. With expectations now more level set, we see OCP next week as a potential positive catalyst for stocks exposed to the theme.

## Key Takeaways

- Timing of 800 volt power delivery to AI compute racks has been a key debate, with euphoria early in the year fading - but we see trends as broadly intact.
- We believe 800V-native rack delivery has shifted right, while sidecars, 2027 Power Centers and VRMs can scale ahead of fully native racks.
- Next week's Global OCP Summit has a larger power agenda, including dedicated 800V/HVDC sessions; potential +ve power/analog semi catalyst.

**We think expectations got ahead of the pace of deployment, but the subsequent "800V delay" narrative has also become too broad.** Kyber is no longer the planned Rubin Ultra rack form factor, raising uncertainty around whether native 800V would still arrive with Rubin Ultra. The latest roadmap appears to push that step to 2028, with the Rubin Ultra generation still using 54VDC, and the first clearly 800V-native rack around Feynman. At the same time, 800V power sidecars are already shipping to plan, NVIDIA expects Power Centers in 2027, and the ecosystem has expanded to 80+ industry participants.

**The setup into OCP is also different from earlier this year.** Following NVIDIA's GTC in March, the group re-rated on greater roadmap detail, including Kyber NVL144 for Rubin Ultra. That re-rating has since reversed despite improving forward estimates, lowering the hurdle for a positive reaction if OCP reinforces that broader 800V deployment remains intact.

**What this could mean for stocks**: many of the single names most directly impacted are outside our coverage, but most stocks with power mgmt or power discrete exposure are beneficiaries, including ADI, TXN, ON, WOLF, and NVTS. But the bigger impact could be driving trailing edge fab utilizations higher. We are starting to anticipate shortages next year, as current trailing edge utilizations are high everywhere but China and TI, and 800V providing an overly on already very strong analog data center growth could push us to the red line next year. We are broadly constructive on the analog group.

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Research as only a single factor in making their investment decision.

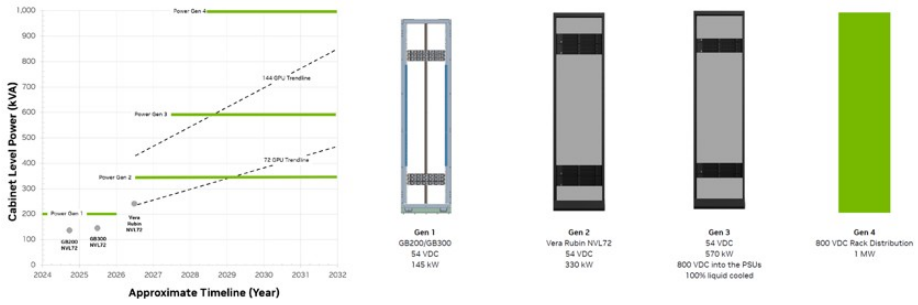
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# 800V Today & the upcoming Open Compute Project

## Where Are We on 800V?

**800V deployment is proving more gradual than early expectations of a significant inflection in 2027.** The main change is deeper native-800V rack delivery, which was initially expected to be seen in Nvidia's Kyber rack form factor for its Rubin Ultra generation in 2H27. As we wrote in July following our NDR with Nvidia, Kyber is no longer the planned Rubin Ultra rack form factor and is being replaced. Notably, Nvidia's latest industry roadmap still shows its ~570kW Gen 3 rack using 54VDC distribution, which we believe is consistent with Rubin Ultra given the ~600kW/144-GPU rack configuration we had expected for Kyber. The first clearly native-800V rack architecture in the roadmap does not appear until the subsequent ~1MW generation, around Feynman.

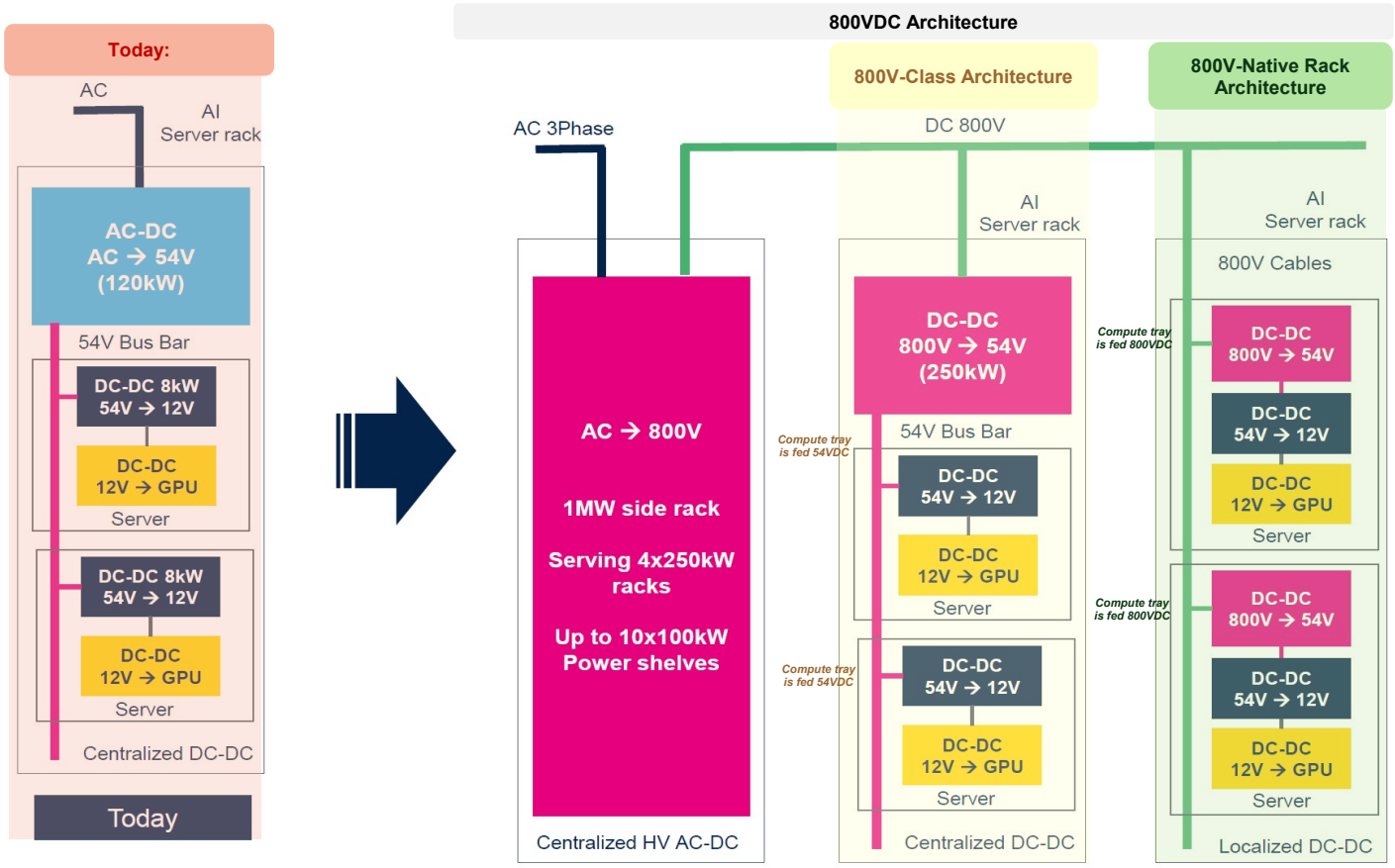
**Exhibit 1:** Nvidia rack form factor roadmap




Source: Nvidia.

**That matters most for the parts of the semiconductor opportunity tied to deeper in-rack conversion.** A later native-rack transition pushes out some of the incremental Stage 1/high-frequency DC/DC opportunity, where GaN has the greatest leverage. But we would separate that from the broader power transition: 800V sidecars have already begun shipping, Power Centers are expected in 2027, upstream conversion can progress independently, and Stage 2/VRM content should continue to scale with rising XPU power density. Our view is therefore that the shape of the ramp has changed more than the direction of the transition. Deeper native-rack adoption appears to have shifted right, while other parts of the architecture continue to progress.

**Exhibit 2:** 800VDC native vs non-native rack power distribution architecture




## What is the Market Pricing In?

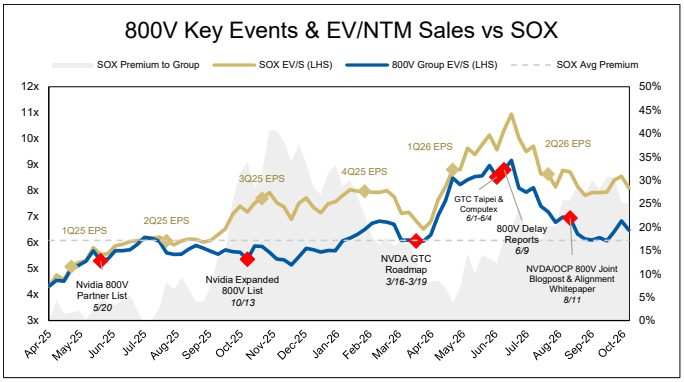
**Recent roadmap uncertainty has weighed on 800V-exposed stocks, although we wouldn't attribute the group's broader derating solely to 800V.** The 800V group's EV/NTM sales multiple rose ~50% after Nvidia's GTC roadmap update, peaking in mid-June and broadly keeping pace with the SOX. Since then, the group has de-rated more than the index and now trades at ~6.5x, close to pre-GTC levels, while the SOX premium to the group has widened to ~25% from ~12%, vs a ~17% average since April 2025.

**To date, roadmap shifts have affected valuations rather than estimates.** Group NTM sales growth has continued to accelerate, from ~12% Y/Y at GTC to ~27% today, while consensus NTM sales estimates have risen ~11% since the initial delay reports, with no names cut. To us, that suggests the 800V timing debate has not meaningfully affected near-term fundamentals, with estimate revisions instead reflecting the broader analog recovery and continued strength in broader data center demand.

**While many of the single names most directly impacted are outside our coverage, we still think** ADI, TXN, ON, WOLF and NVTS could benefit from a constructive OCP read-through given their power mgmt/power discrete exposure. That comes as the group's post-GTC re-rating has fully reversed despite a materially higher sales base, leaving the setup more balanced heading into OCP. In our view, the market is now discounting a broader slowdown in the 800V opportunity than the underlying roadmap and

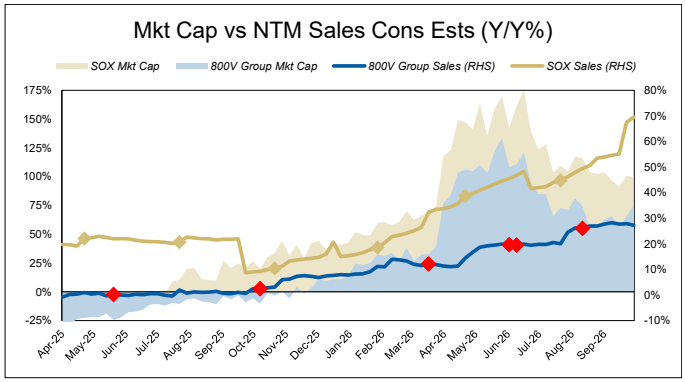
fundamentals support, which leaves a more favorable setup into OCP if the conference reinforces that deployment remains intact.

**Exhibit 3:** The 800V group's re-rating after GTC has fully reversed, and the SOX premium is back above average...




Note: 800V Group is equal-weighted; includes: TXN, ADI, ON, MPWR, POWI, Infineon, STMicro, Renesas, Rohm and excludes AOSL and NVTS (outliers) and Richtek (private). Source: VisibleAlpha, Bloomberg.

**Exhibit 4:** ...though estimates are still ~20% higher Y/Y, suggesting the derating has been primarily multiple contraction




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## OCP 2026: The Next 800V Industry Checkpoint

**We believe OCP's Global Summit next week is the next major industry checkpoint for the theme.** The Open Compute Project (OCP) brings together hyperscalers, equipment vendors and component suppliers working on next-generation data-center infrastructure. That makes its annual Global Summit a particularly useful checkpoint for a developing architecture like 800V. Power/data-center-facility sessions have increased materially over the last several years, with relevant sessions nearly tripling since 2024 and the category now representing ~16% of the technical agenda. Within that mix, 800V/HVDC, rack/facility power delivery, DC distribution and energy storage are all receiving greater focus.

**We expect the summit to provide incremental detail on how the 800V architecture is moving from industry alignment toward deployment,** including system requirements, protection/safety, power delivery and the work still needed across the ecosystem. Last year's conference coincided with NVIDIA's expanded 800V ecosystem list and publication of its original 800VDC architecture white paper, making OCP a natural venue for further roadmap and deployment updates this year.

**More recently, NVIDIA, Google and Microsoft have also highlighted broader industry alignment around next-generation 800VDC power distribution,** with NVIDIA now citing 80+ equipment manufacturers and infrastructure companies building to the specification. Development is also extending further upstream, with SST-based solutions advancing through industry co-development. This year's agenda includes dedicated sessions spanning end-to-end 800V system requirements, direct-to-server power, sidecar architectures, protection/safety and on-board power delivery across NVIDIA, hyperscalers and power-system vendors.

**Exhibit 5:** OCP technical sessions grew >30%, while power/ facility sessions nearly tripled...

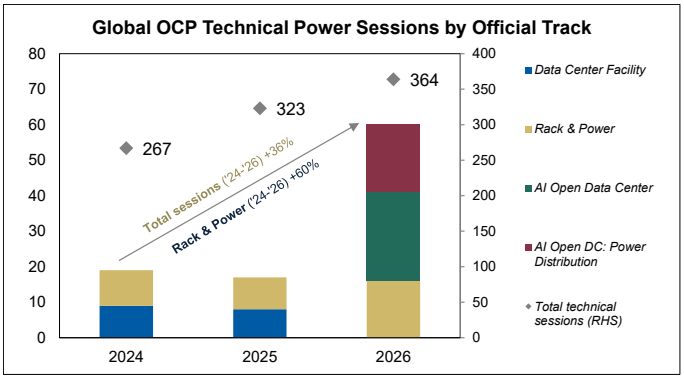



**Exhibit 6:** ...of which now represent ~16% of the technical agenda vs HSD in the prior two years

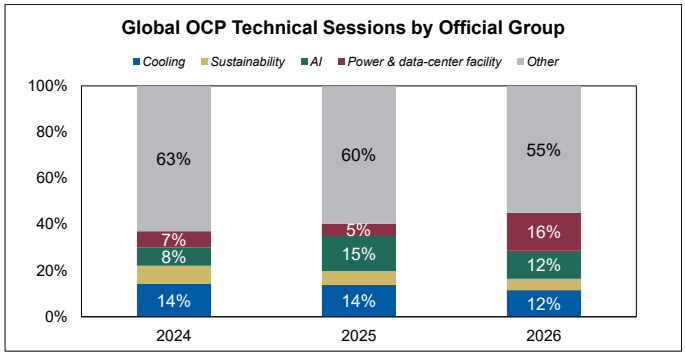


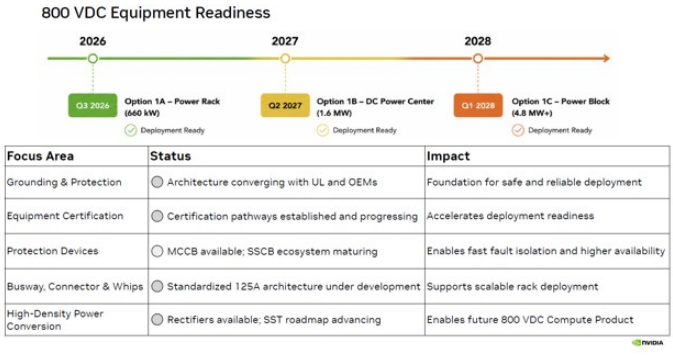

**Exhibit 7:**

OCP 2026 features a broad slate of HVDC/800V sessions

| Session Title | Company | Track |
|---|---|---|
| 800 VDC AI Factories: From Architecture Alignment to Industry Deployment | NVIDIA | AI Open Data Center |
| Supporting load smoothing, Fault Ride-through (FRT), and back up in 800 Vdc critical powertrains | Schneider Electric | AI Open Data Center |
| +/-400V / 800V On-Board Power Delivery Requirements | Microsoft, Google, Meta | AI Open DC: Power Distribution |
| 2-Wire vs. 3-Wire at 800VDC: Grounding, Fault Behavior, and Protection for AI Data Centers | Siemens | AI Open DC: Power Distribution |
| 800VDC Power Systems: Redefining Protection, Coordination & System Safety | Schneider Electric | AI Open DC: Power Distribution |
| Defining End-to-End 800VDC System Performance Requirements | NVIDIA | AI Open DC: Power Distribution |
| Designing Safe 800 VDC Systems: Protection, Fault Management, and Operations | NVIDIA | AI Open DC: Power Distribution |
| From Principles to Practice: Implementing OCP LVDC Frameworks with a 600kW, 800VDC Sidecar Power System Design | Siemens, Skeleton Technologies | AI Open DC: Power Distribution |
| Rethinking Power Safety: The Inherent Benefits of 800V Low Voltage DC Architectures | Google | AI Open DC: Power Distribution |
| What the Automotive Industry Can Teach Us About 800 VDC Data Centers | Flex | AI Open DC: Power Distribution |
| 800V Data Center DC/DC Design Considerations, Topology Comparisons, and Trade-offs | Texas Instruments | Rack & Power |
| 800V direct-to-server and power shelf solutions | Advanced Energy | Rack & Power |
| Powering the AI Rack of the Future: A Scalable 800 V DC Sidecar Architecture | Bosch, Rittal | Rack & Power |

**We are focused primarily on whether the industry continues to support a gradual but intact deployment path:** continued progress in 800V power sidecars, which our checks suggest have begun shipping broadly in-line with the expected 2H26 schedule; Power Centers, which NVIDIA expects to be available in 2027; clarity around the timing of deeper native-rack delivery; and any evidence that the ecosystem is moving faster or slower than current expectations.

**Exhibit 8:** NVIDIA's roadmap shows 800V infrastructure scaling through 2026-28...




Source: Nvidia.

**Exhibit 9:** ...while the effort has broadened into wider industry alignment around 800VDC




Source: Nvidia

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