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## Progress Report – Transition from Klystrons to Solid State RF at the Advanced Photon Source

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The transition from klystrons to solid state rf power sources at the Advanced Photon Source is well underway, with the first four 352MHz/160kW solid state rf systems scheduled for installation in the fall of 2025. R&D efforts leading up to the transition to solid state will be discussed, including the design and testing of 352MHz prototype solid state rf amplifiers at the 12kW, 32kW, and 200kW level, and the design and testing of a 16-input/200kW combining cavity and four-port waveguide combiner. The influence this R&D effort had on the final design of the 352MHz/160kW systems will be discussed.

**Author:** HORAN, Douglas (Argonne National Laboratory)

**Presenter:** HORAN, Douglas (Argonne National Laboratory)

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