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## Prototype Development and Testing of the Alternate Topology HVCM modulator to support the Proton Power Upgrade (PPU) at SNS.

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*The Proton Power Upgrade(PPU)project at SNS is planned to accelerate 38mA of beam current to 1.3GV, effectively doubling the accelerator power capability to support the planned Second Target Station. This project required three additional modulators to power the 28 additional 700kW klystrons and associated high beta cavities. An alternate topology high voltage converter modulator (AT-HVCM) has been developed by modifying the existing SNS HVCMs by series-stacking the dual-duty resonant/filter capacitors and relocating them after the rectifiers. This paper discusses the modulator requirements to power the klystrons, advantages of the topology modification over the existing HVCM systems and the scope of modifications required. Results from the prototype testing campaign and future planned activities will also be discussed.*

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