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Upgrade specifications for the booster main magnet power supply

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The current Booster Main Magnet Power Supply (MMPS) has a maximum power draw of 18 MW drawn directly from the AC power line. To support this high power draw, the Booster has a dedicated 69 kV substation. The Rapid Cycling Synchrotron for the Electron Ion Collider will also require a 69 kV substation. To free the existing 69 kV substation, the Booster MMPS will be upgraded to a capacitor style power supply. This paper documents the power supply requirements.

Footnotes

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