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## **Status of Electricity and energy management work package**

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The FCC machines will require a strong electricity supply for power demand in the order of 400 to 600MW. A Detail study was performed with 3 sub-stations at 400kV as delivery points. FCC-hh and FCC-ee were considered and a strong baseline was achieved. For Phase 2 of the study, the work package will focus on alternative scenarios and on optimization. The alternative scenarios concern the number of delivery points and sub-station voltage, the transmission between points and the failure scenarios to secure the electricity supply, the integration of energy production and storage, the immunity against transient disturbances, and the power quality. The objectives of phase 2 are to optimize the supply of electricity, to optimize the electrical network for both machine FCC-ee and FCC-hh, and to propose a robust powering scheme.

**Author:** BURNET, Jean-Paul (CERN)

**Presenter:** BURNET, Jean-Paul (CERN)

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