POWER**OPTIMAL**
THE FUTURE OF ENERGY

POWEROPTIMAL
BENJAMIN **SYSTEM**

Incoming Grid Power

Checks if grid power is on

UPS (BATTERY & INVERTER SYSTEM)

measure current

BENJAMIN CONTROLLER

| A | B | C | D |

Unmanaged Loads
*These are **OFF** when grid power fails.*

| A | B | C | D |

Critical Uninterrupted Loads
*These are always **ON** as long as battery power is available.*

| A | B | C | D |

Managed Loads
*On the backup power supply, the default for these is **OFF**, but will be allowed **ON** if there is battery power available over and above what is being used by critical loads at a given point in time.*
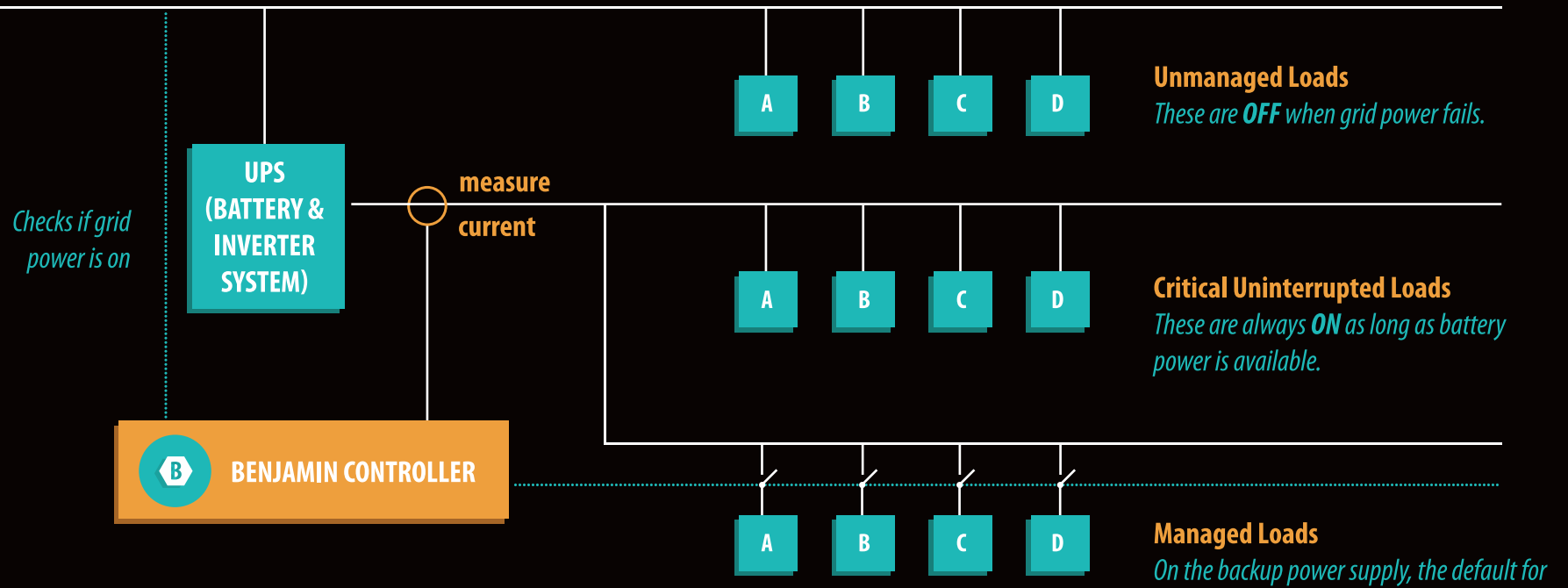
- The battery / inverter system is sized to provide sufficient power for times when all critical / uninterrupted loads are on.
- When the grid power fails, Benjamin switches off all managed loads within a single power cycle. It then checks if spare current is available from the battery / inverter system before starting to switch on the managed loads.
- When the power comes back on, the UPS (Uninterruptible Power Supply) waits 5 minutes before switching critical loads back to the grid; Benjamin switches off the managed loads and switches them to the grid after 6 minutes. This allows time for the grid power to become stable.