

# Shutdown Success Story

Working to Restart the Linac and Particle  
Accumulator Ring (PAR)

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Linac K2 50-MW klystron & modulator



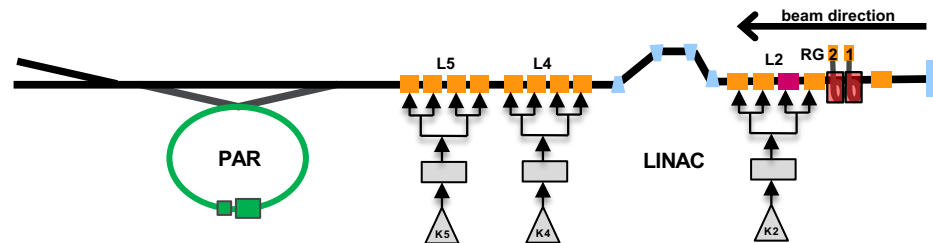
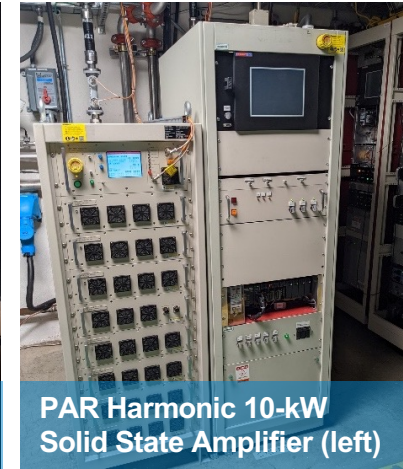
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# LINAC/PAR RESTART IS IN PROGRESS

- Management approved restarting Linac and PAR after comprehensive Internal Readiness Review. Both machines have been powered off since April.
- Technical improvements support APS Upgrade mission and ensure reliable injector operation over the next few decades.
  - Access Control Interlock System (ACIS) upgrade
  - Linac refurbishments
  - PAR upgrades
- Commissioning and testing are planned over the next several months.



# HIGHLIGHTS OF IMPROVEMENTS AND TESTING ACTIVITIES

Detailed schedule in progress for commissioning and transition to operations of numerous improvements.

## LINAC

- New timing system
- New electron guns (RG1, RG2)
- Digital low-level rf (DLLRF) system at K2
- Ten new, faster magnet power supplies
- Linac charge control script
- RG1 alpha magnet improvement (leakage field)
- Fast ramping alpha magnet (in progress)

## PAR

- Fundamental and harmonic DLLRF system
- New ceramic kicker chambers
- HP surveys for higher current
- THz diagnostics

